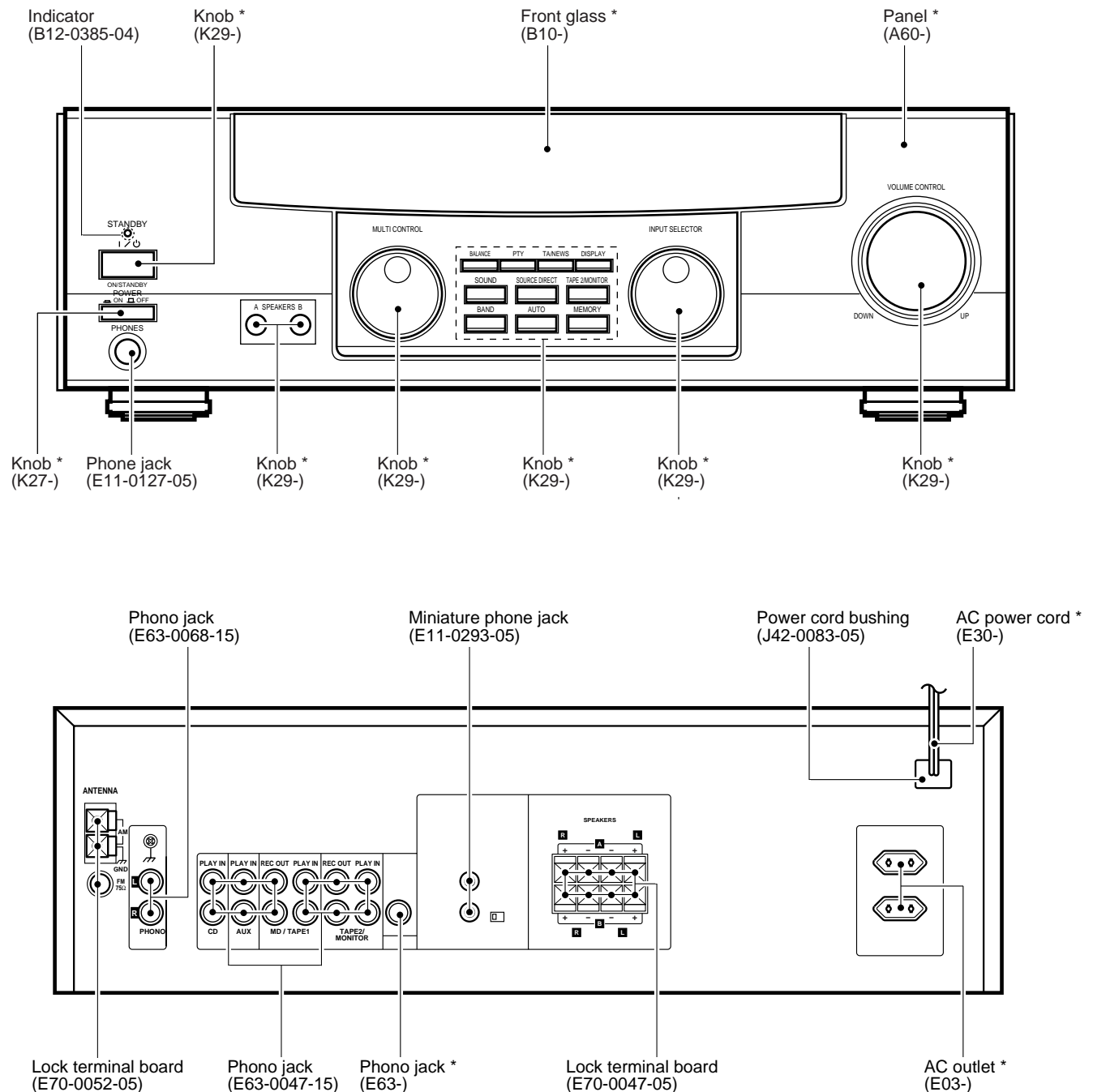


AR-404/KRF-A4030/ A4030E/A4030-S

SERVICE MANUAL




CONTENTS / ACCESSORIES / CAUTIONS

Contents

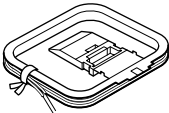
| | | | |
|---|---|-------------------------|----|
| CONTENTS / ACCESSORIES / CAUTIONS | 2 | SCHEMATIC DIAGRAM | 11 |
| CIRCUIT DESCRIPTION | 3 | EXPLODED VIEW | 20 |
| ADJUSTMENT | 6 | PARTS LIST | 21 |
| PC BOARD | 7 | SPECIFICATIONS | 27 |

Accessories

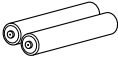
FM indoor antenna (1)
(T90-0836-05)



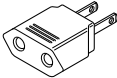
AM loop antenna (1)
(T90-0852-05)



Batteries (R06/AA) (2)

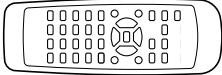


AC plug adaptor (1)
(E03-0115-05)



*Use to adapt the plug on the power cord to the shape of the wall outlet.
(Accessory only for regions where use is necessary.)

Remote control unit (1)
(A70-1266-05): RC-R0709.....KPMX
(A70-1267-05): RC-R0708.....E1E2E3



Cautions

Resetting the Microcomputer

If the microcomputer may malfunction (unit cannot be operated, or shows an erroneous display) if the power cord is unplugged while the power is ON, or due to some other external factor. If this happens, execute the following procedure to reset the microcomputer and return the unit to its normal operating condition.

For U.S.A. and Canada

Unplug the power cord from the wall outlet, then plug it back in while holding down the POWER key.

Except for U.S.A. and Canada

With the power cord plugged in, turn the POWER key OFF. Then, while holding down the ON/STANDBY key, press the POWER key.

- Please note that resetting the microcomputer will clear the contents of the memory and returns the unit to the state it was in when it left the factory.

CIRCUIT DESCRIPTION

1. BACK UP DATA AND INITIAL STATE

1-1 BACK UP

(1) AMP

- POWER.....STANDBY
- INPUT SELECTOR.....TUNER
- BALANCE.....CENTER
- SPEAKER A RELAY.....ON
- SPEAKER B RELAY.....OFF
- VOLUME LEVEL.....-66dB
- BASS LEVEL.....0dB
- TREBLE LEVEL.....0dB
- INPUT LEVEL.....0dB
- SOURCE DIRECT.....OFF
- TAPE2/MONITOR.....OFF

(2) TUNER

- BAND.....FM
- PRESET CHANNEL....."--"
- FREQUENCY.....LOWER LIMIT VALUE
 - K1.....FM:87.50MHz
 - AM:530kHz
 - E1/E3.....FM:87.50MHz
 - AM:531kHz
- AUTO/MANUAL.....AUTO
- DISPLAY MODE.....FREQUENCY
- E ON THRUST RECEIVING.....OFF
- MODE
- T1 VOLUME.....OFF(-66dB)

1-2 INITIAL SETTING

The initial setting is performed when the AC power cord is plugged into the AC power wall out let while pressing the power (STANDBY) key.

2. DESTINATION LIST OF TUNER

| DESTINATION | TUNER TYPE | BAND | RECEIVING FREQUENCY RANGE | CHANNEL SPACE | IF | PLL REFERENCE FREQUENCY | DSW3 (D507) | DSW2 (D505) | DSW1 (D504) | DSW0 (D510) |
|-------------|------------|----------|------------------------------------|-----------------|---------------------|-------------------------|-------------|-------------|-------------|-------------|
| K,P | K1(1700) | FM AM | 87.5MHz~108.0MHz 530kHz~1700kHz | 100kHz 10kHz | +10.7MHz +450kHz | 25kHz 10kHz | 0 | 0 | 0 | 0 |
| M,X | E1 | FM AM | 87.5MHz~108.0MHz 531kHz~1602kHz | 50kHz 9kHz | +10.7MHz +450kHz | 25kHz 9kHz | 0 | 0 | 1 | 1 |
| M | K2(1600) | FM AM | 87.5MHz~108.0MHz 530kHz~1610kHz | 100kHz 10kHz | +10.7MHz +450kHz | 25kHz 10kHz | 0 | 0 | 0 | 1 |
| E | E3 RDS | FM AM | 87.5MHz~108.0MHz 531kHz~1602kHz | 50kHz 9kHz | +10.7MHz +450kHz | 25kHz 9kHz | 0 | 1 | 0 | 1 |

DSW0~DSW3(DIODE SW) * 0: NONE DIODE,1:ADD DIODE

3. TEST MODE

3-1 SETTING

Turn the power ON while pressing the [BAND] key.

3-2 CANCELLATION

Unplug the AC power cord from an AC power wall outlet.

3-3 STARTING ACTIVE CONTENTS

- The power on state is entered whenever the power is trued on while pressing the [BAND] key.
- All functions are initialized and activated in the all lighting mode.
- All lighting mode is canceled when any main unit's keys are pressed. The normal display obtained when the selector is set to TUNER then appears.
- E2PROM check(Etype only).

Check the reading data and the writing data of the E2PROM after setting the test mode.

Display shows blank if the reading data and writing data are the same. Display shows "LW" if the different data will be written to E2PROM.

3-4 ACTIVE CONTENTS

- The mute control is not activated when the mode is switched.
- The test mode will be terminated by plugging it off the power source or by initializing it when all the settings will be initialized.

- During the test mode, it can be operated in a special manner that is deferent from an ordinary operation by using the keys on the remote control or the main body ,specifically as shown in the following table (3-5 CONTENTS).
- Channel space will be no changed in the test mode.

3-5 CONTENTS

3-5-1 TUNER FUNCTION

WITH THE SELECTOR ON TUNER (E TYPE ONLY)

| OPERATION KEY | FUNCTION | FL DISPLAY | REMARKS |
|---------------|-------------------|--|---------------------------|
| PTY | S LEVEL RF ATT | (EX.) (1)(SLEVEL), (RF ATT)OFF (2)(SLEVEL), (RF ATT)ON (3)(NORMAL), (RF)ATT OFF | (1) (2) ← (3) CYCLE |
| DISPLAY | P.CALL UP | P.CALL FREQUENCY | - |
| TA/NEWS | PI CODE | PI 0000 | PI CODE ON/OFF |

3-5-2 AMP FUNCTION

WITH THE SELECTOR ON SOMETHING OTHER THAN TUNER

- One touch max,min setting for Audio level.

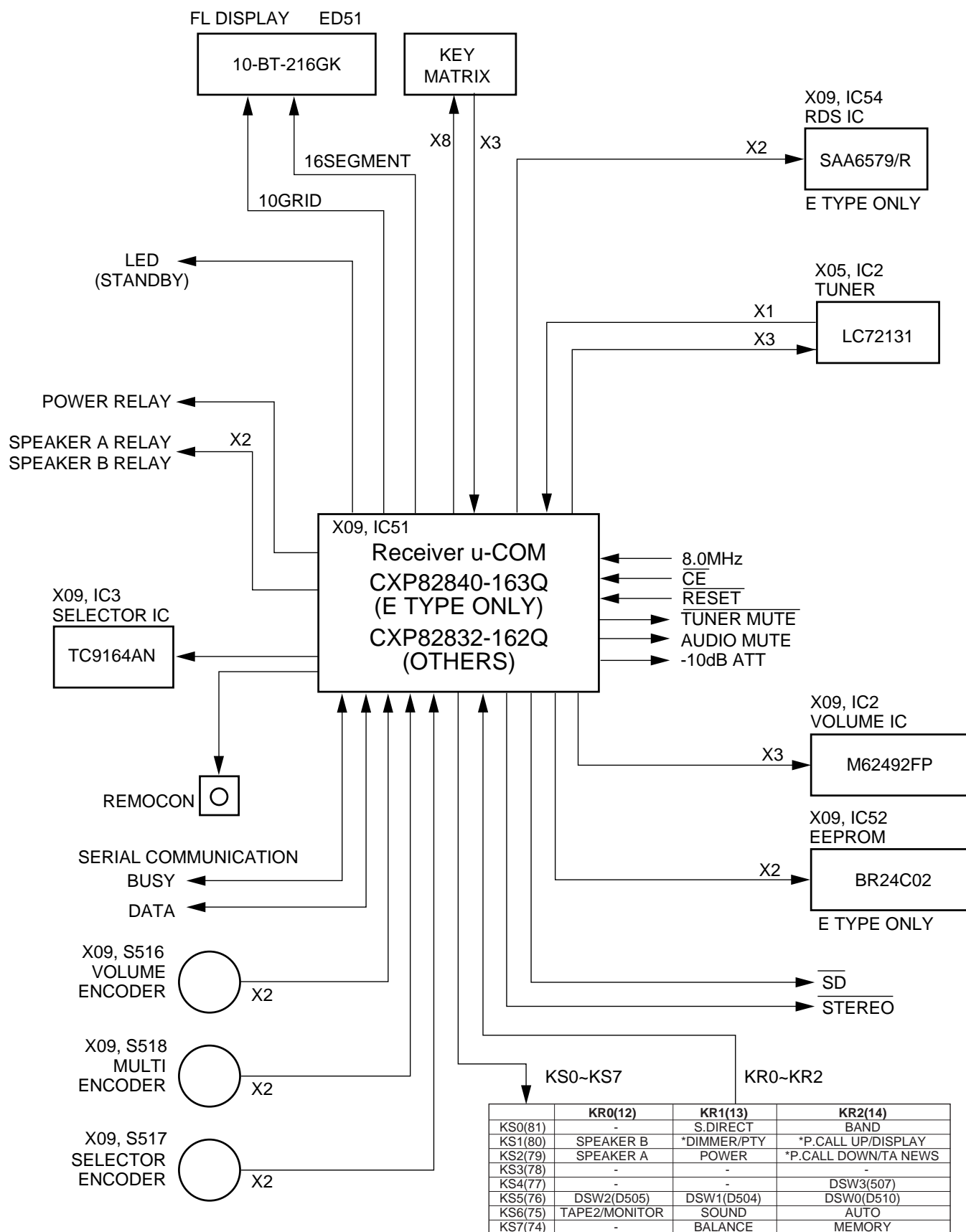
| KEY | MASTER VR. | SOUND KEY | |
|--------|------------|-----------|--------|
| | | BASS | TREBLE |
| BAND | -89dB | 0dB | +10dB |
| AUTO | 0dB | 0dB | +10dB |
| MEMORY | -10dB | 0dB | +10dB |

Bass and treble are selected while the sound key is pressed.

CIRCUIT DESCRIPTION

4. Microprocessor CXP82840-163Q, CXP82832-162Q (X09, IC51)

4-1 Microprocessor periphery block diagram diagram



PTY, DISPLAY and TA/NEWS keys are only RDS version(E type).

AR-404/KRF-A4030/A4030E/A4030-S

CIRCUIT DESCRIPTION

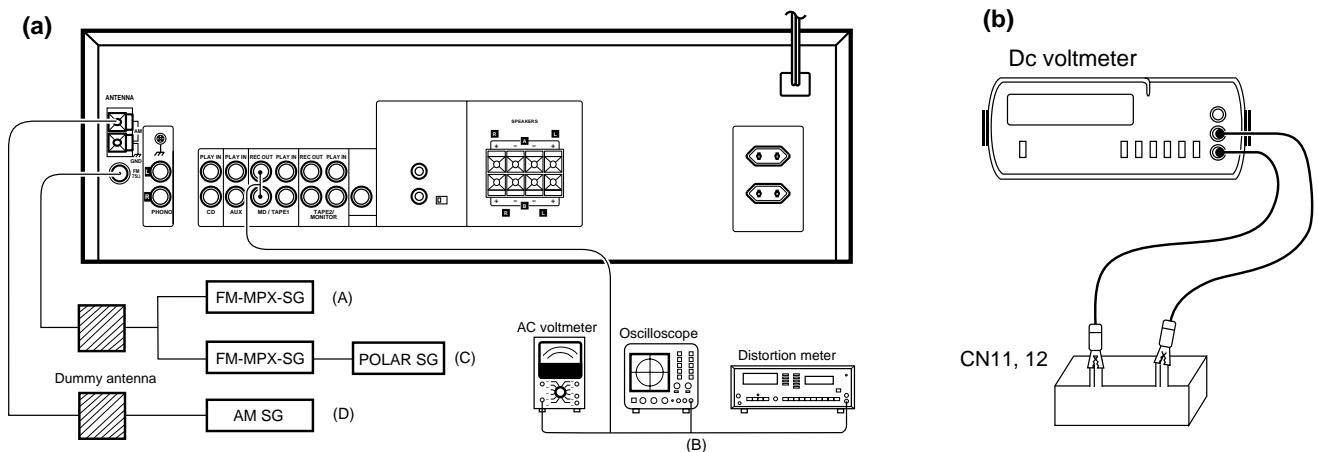
4.2 Microprocessor pin descriptions: X09,IC51

| Pin No. | Pin name | I/O | Description | Active |
|---------|----------------|-----|--|------------------|
| 1,2 | G9,G10 | O | FL grid control (9,10). | |
| 3 | NC | - | u-Com +5V power supply. | |
| 4 | RDS,CK | I | RDS IC clock input control. (E type only) | |
| 5 | RDS,DT | I | RDS IC data input control. (E type only) | |
| 6 | NC | I | u-Com +5V power supply. | |
| 7 | VOL.ENC.A | I | Volume encoder A (CW) signal. | |
| 8 | REMOCON | I | Remote control signal input. | |
| 9 | VOL.ENC.B | I | Volume encoder B (CCW) signal. | |
| 10,11 | NC | - | Unused. | |
| 12~14 | KR0~KR2 | I | Key return (0~2). | |
| 15 | PROTECT | I | Protection detection signal input. | H: Protection ON |
| 16 | S.DATA | I/O | Serial communication data. | |
| 17 | S.BUSY | I/O | Serial communication busy. | |
| 18 | E2.DATA | I/O | E2 PROM data. | |
| 19 | E2.CLK | O | E2 PROM clock. | |
| 20 | SEL.ENC2 CW | I | Selector encoder A(CW) input. | |
| 21 | SEL.ENC2 CCW2 | I | Selector encoder B(CCW) input. | |
| 22 | MLT. ENC3 CW3 | I | Multi control encoder A(CW). | |
| 23 | MLT. ENC3 CCW3 | I | Multi control encoder B(CCW). | |
| 24 | 8/16 | I | Serial communication 8bit/16bit changeover. | |
| 25~27 | NC | - | Unused. | |
| 28 | AV REF | - | Analog reference voltage (+5V). | |
| 29 | S.LEVEL | I | Signal level A/D input. (E type only) | |
| 30~32 | NC | - | Unused. | |
| 33 | PLL.DO | I | PLL IC DO signal input. (E type only) | |
| 34 | PLL.STEREO | I | TUNER stereo signal input. | L: STEREO |
| 35 | PLL.SD | I | TUNER SD signal input. | L: TUNED |
| 36 | RCV.CE | I | Receiver chip enable signal input. | L: ENABLE |
| 37 | AVSS | - | Analog ground. | |
| 38 | RESET | I | u-Com reset. | |
| 39 | EXTAL | I | Main clock(8MHZ). | |
| 40 | XTAL | - | Main clock(8MHZ). | |
| 41 | VSS | - | u-Com ground. | |
| 42 | TX | - | Unused. | |
| 43 | TEX | I | Ground. | |
| 44 | VDD | - | Analog power supply (+5V). | |
| 45 | VFDP | - | FL power supply(-33V). | |
| 46 | SEL.STB | O | TC9164AF strobe. | H: LATCH |
| 47 | SEL/PLL.DT | O | Selector/PLL IC data signal output. | |
| 48 | SEL/PLL.CK | O | Selector/PLL IC clock signal output. | |
| 49 | PLL.CE | O | PLL IC CE signal output. | |
| 50 | T.MUTE | O | Tuner mute control. | L: MUTE ON |
| 51 | A.MUTE | O | Audio mute control. | L: MUTE ON |
| 52 | NC | - | Unused. | |
| 53 | 10dB.ATT | O | Volume 10dB attenuator control. | L: ATT ON |
| 54 | VOL.DT | O | Volume IC(M62492FP) data control. | |
| 55 | VOL.CK | O | Volume IC(M62492FP) clock control. | |
| 56 | VOL.STB | O | Volume IC(M62492FP) strobe control. | |
| 57~59 | NC | - | Unused. | |
| 60 | RELAY.A | O | SP. relay A control. | H: RELAY ON |
| 61 | RELAY.B | O | SP. relay B control. | H: RELAY ON |
| 62,63 | NC | - | Unused. | |
| 64 | POWER.RLY | O | Power relay control. | H: RELAY ON |
| 65 | STANDBY.LED | O | STANDBY LED control. | H: LED ON |
| 66~71 | NC | - | Unused. | |
| 72 | LIMITER | O | Output power control at SP. (A+B). K/M/X only. | |
| 73 | S.W MUTE | - | Unused. | |
| 74,75 | KS6/KS7 | O | Key scan 6,7. | |
| 76~81 | P1/KS5~P6/KS0 | O | FL segment 1~6/key scan 5~0. | |
| 82~88 | P7~P13 | O | FL segment 7~13. | |
| 89 | VDD | O | u-Com +5V power supply. | |
| 90~92 | P14~P16 | O | FL segment 14~16. | |
| 93~100 | G1~G8 | O | FL GRID 1~8. | |

ADJUSTMENT

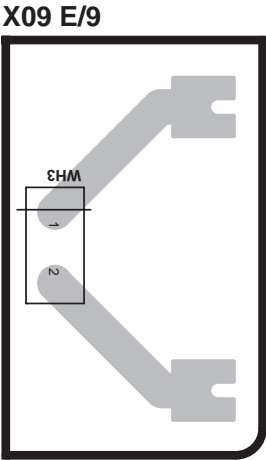
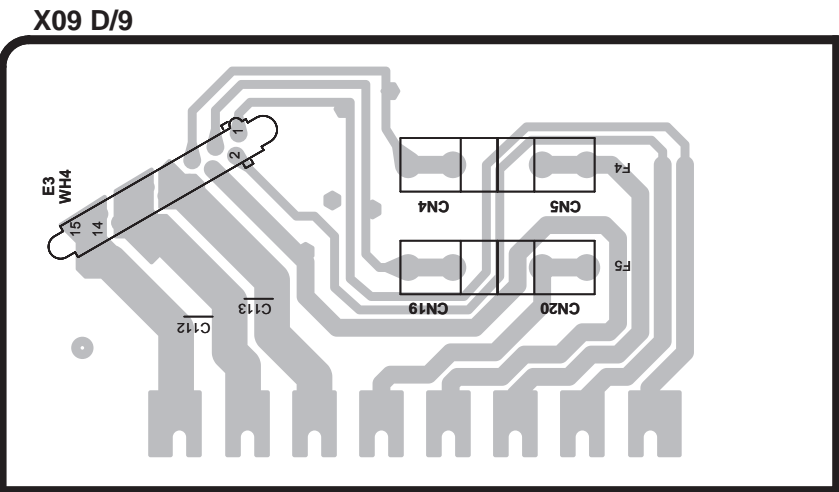
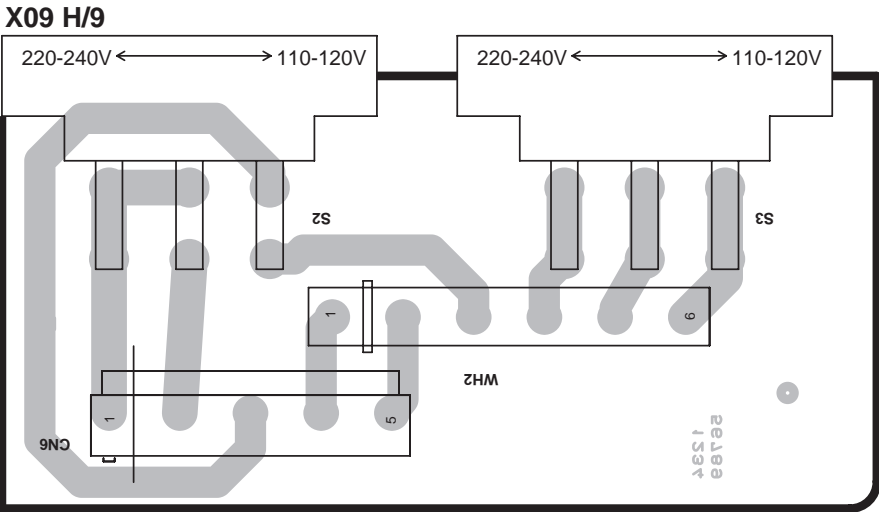
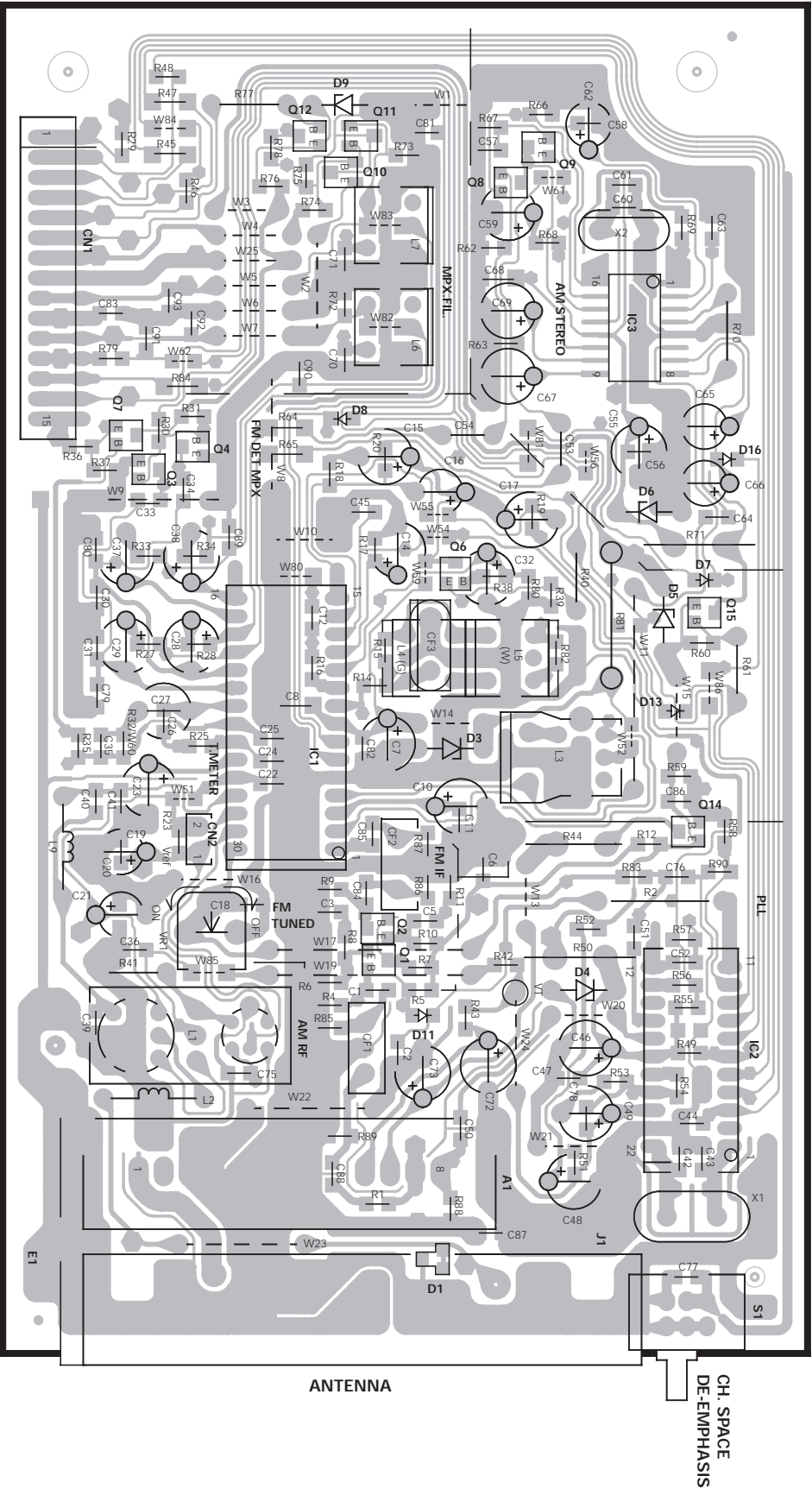
| No. | ITEM | INPUT SETTINGS | OUTPUT SETTINGS | RECEIVER SETTINGS | ALIGNMENT POINTS | ALIGN FOR | FIG. |
|--|---------------------|---|---|-------------------|-----------------------------|---|------|
| FM SECTION : EXCEPT E type SELECTOR : FM | | | | | | | |
| 1 | DISTORTION (STEREO) | (C) 98.0MHz 1kHz, ±68.25kHz dev. Selector : L or R Pilot : ±6.75kHz dev. 70dBf (ANT. input) | (B) | 98.0MHz | IFT (TUNER UNIT: A1) | Minimum distortion (L or R) | (a) |
| 2 | TUNING LEVEL | (A) 98.0MHz MONO 1kHz, ±75kHz dev. 25dBf (ANT. input) | (B) | MONO 98.0MHz | VR1 (TUNER UNIT) | Adjust VR1 and stop at the point where ED51 (TUNED) goes on. | (a) |
| FM SECTION : E type only SELECTOR : FM ※ Adjust NO.1 and NO.2 repeat. | | | | | | | |
| 1 | DISCRIMINATOR | (A) 98.0MHz 1kHz, ±40kHz dev. 70dBf (ANT. input) | Connect a DC voltmeter between CN2 ① and CN2 ② (TUNER UNIT) | MONO 98.0MHz | L4 (TUNER UNIT) | 0V | (a) |
| 2 | DISTORTION (MONO) | (A) 98.0MHz 1kHz, ±40kHz dev. MONO 70dBf (ANT. input) | (B) | MONO 98.0MHz | L5 (TUNER UNIT) | Minimum distortion | (a) |
| 3 | DISTORTION (STEREO) | (C) 98.0MHz 1kHz, ±40kHz dev. Selector : L or R Pilot : ±6kHz dev. 70dBf (ANT. input) | (B) | AUTO 98.0MHz | IFT (TUNER UNIT : A1) | Minimum distortion (L or R) | (a) |
| 4 | TUNING LEVEL | (A) 98.0MHz MONO 1kHz, ±40kHz dev. 25dBf (ANT. input) | (B) | MONO 98.0MHz | VR1 (TUNER UNIT) | Adjust VR1 and stop at the point where ED51 (TUNED) goes on. | (a) |
| AUDIO SECTION | | | | | | | |
| 1 | IDLE CURRENT | — | Connect a DC Volumeter across CN11 (L) CN12 (R) | Volume: 0 | VR1 (L) VR2 (R) | 11 mV | (b) |

SYSTEM CONNECTIONS



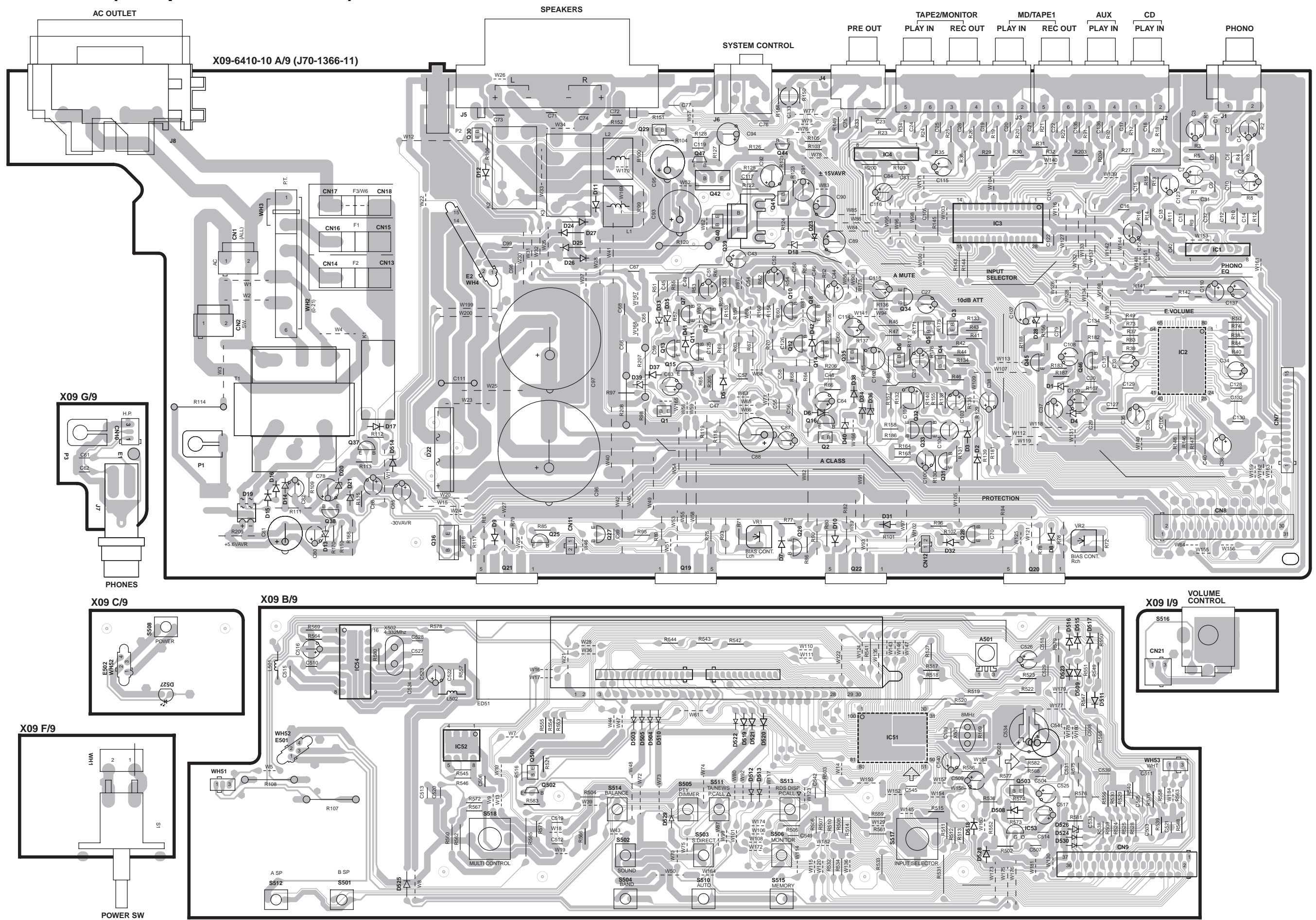
PC BOARD (Component side view)

TUNER UNIT
X05-498X-XX

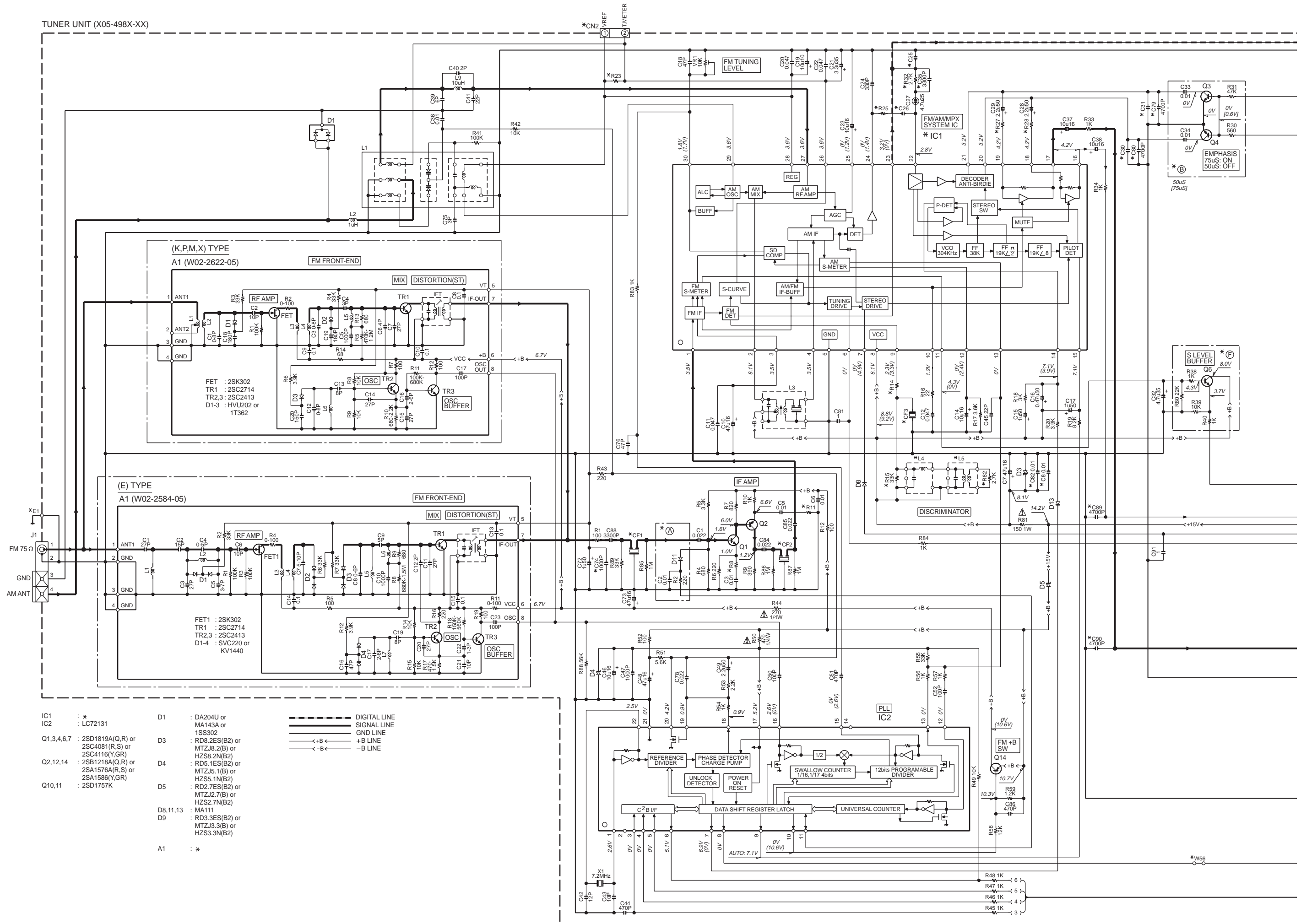


Refer to the schematic diagram for the value of resistors and capacitors.

PC BOARD (Component side view) AUDIO UNIT



Refer to the schematic diagram for the value of resistors and capacitors.



(X05-498X-XX)

AR-404 (X05-4980-11)

| DESTINATION | UNIT No. | A | B | C | F | R8, 11 | R14 | R15, 32, 82 | R23 | R25 | R27, 28 | R29, 36 | R72, 73 | C8, 70, 71, 77, 79, 80 | C25 | C26 | C30, 31 | C35, 82, 74, 89, 90 |
|-------------|----------|------|---|---|---|--------|-----|-------------|------|-----|---------|---------|---------|------------------------|------|-------|---------|---------------------|
| COUNTRY | ABB. | | | | | | | | | | | | | | | | | |
| U.S.A. | K | 0-11 | | | | 33 | 100 | YES | 4.7K | 22K | 6.2K | NO | 15K | NO | 470P | 0.022 | 0.033 | YES |
| CANADA | P | | | | | | | | | | | | | | | | | |

| DESTINATION | UNIT No. | A1 | CF1,2 | CF3 | IC1 | L4,5, 6,7 | CN2 | W56 | W82, 83 | S1 | E1 |
|-------------|----------|----------|----------------|-----|--------|-----------|-----|-----|---------|-----|----------|
| COUNTRY | ABB. | | | | | | | | | | |
| U.S.A. | K | W02-2622 | L72-0596 (MS2) | NO | LA1837 | YES | NO | YES | NO | YES | F10-1129 |
| CANADA | P | | | | | | | | | | |

KRF-A4030S (X05-4980-23)

| DESTINATION | | UNIT No. | A | C | F | B | R8 | R11 | R14 | R15, 36, 82 | R23 | R25 | R27, 28 | R29 | R32 | R72, 73 | C8, 35, 74, 77, 89, 90 | C25 | C26 | C30, 31 | C70, 71, 79, 80, 82 | C74 | C77 | |
|----------------|------|----------|-----|---|---|---|-----|-----|-----|-------------|-----|------|---------|------|-----|---------|------------------------|-----|------|---------|---------------------|-----|-----|-----|
| COUNTRY | ABB. | | | | | | | | | | | | | | | | | | | | | | | |
| GENERAL MARKET | M | 0-23 | NO | | | | YES | 33 | 33 | 270 | NO | 3.3K | 18K | 7.5K | YES | YES | 8.2K | YES | 470P | 0.022 | 0.022 | NO | NO | YES |
| AUSTRALIA | X | 0-72 | NO | | | | NO | 10 | 22 | 100 | YES | 15K | 27K | 4.3K | NO | W60 | 3.9K | NO | 180P | 0.018 | 0.022 | YES | NO | NO |
| EUROPE | E3 | 2-72 | YES | | | | | | | | | | | | | | | | | | | | | |

| DESTINATION | UNIT No. | A1 | CF1,2 | CF3 | IC1 | L4,5, 6,7 | CN2 | W56 | W82, 83 | S1 | E1 |
|----------------|----------|----------|----------------|-----|--------|-----------|-----|-----|---------|-----|----------|
| COUNTRY | ABB. | | | | | | | | | | |
| GENERAL MARKET | M | W02-2622 | L72-0531 (MA5) | YES | LA1838 | NO | NO | YES | YES | YES | F10-1129 |
| AUSTRALIA | X | 0-72 | | | | | | | | | |
| EUROPE | E3 | W02-2584 | L72-0536 (MS3) | NO | LA1837 | YES | YES | NO | NO | NO | F10-1128 |

KRF-A4030 (X05-4982-72)

| DESTINATION | UNIT No. | A | B | C | F | R8 | R11 | R14 | R15, 82 | R23 | R25 | R27, 28 | R29 | R32 | R36 | R72, 73 | C8, 35, 74, 77, 89, 90 | C25 | C26 | C30, 31 | C70, 71, 79, 80, 82 |
|-------------|----------|------|---|---|---|----|-----|-----|---------|-----|-----|---------|-----|-----|-----|---------|------------------------|------|-------|---------|---------------------|
| COUNTRY | ABB. | | | | | | | | | | | | | | | | | | | | |
| EUROPE | E1 | 2-72 | | | | 10 | 22 | 100 | YES | 15K | 27K | 4.3K | NO | W60 | YES | 3.9K | NO | 180P | 0.018 | 0.022 | YES |

| DESTINATION | UNIT No. | A1 | CF1,2 | CF3 | IC1 | L4,5, 6,7 | CN2 | W56 | W82, 83 | S1 | E1 |
|-------------|----------|----------|----------------|-----|--------|-----------|-----|-----|---------|----|----------|
| COUNTRY | ABB. | | | | | | | | | | |
| EUROPE | E1 | W02-2584 | L72-0536 (MS3) | NO | LA1837 | YES | YES | NO | NO | NO | F10-1128 |

KRF-A4030E (X05-4982-72)

| DESTINATION | UNIT No. | A | B | C | F | R8 | R11 | R14 | R15, 82 | R23 | R25 | R27, 28 | R29 | R32 | R36 | R72, 73 | C8, 35, 74, 77, 89, 90 | C25 | C26 | C30, 31 | C70, 71, 79, 80, 82 |
|-------------|----------|------|---|---|---|----|-----|-----|---------|-----|-----|---------|-----|-----|-----|---------|------------------------|------|-------|---------|---------------------|
| COUNTRY | ABB. | | | | | | | | | | | | | | | | | | | | |
| EUROPE | E2 | 2-72 | | | | 10 | 22 | 100 | YES | 15K | 27K | 4.3K | NO | W60 | YES | 3.9K | NO | 180P | 0.018 | 0.022 | YES |

| DESTINATION | UNIT No. | A1 | CF1,2 | CF3 | IC1 | L4,5, 6,7 | CN2 | W56 | W82, 83 | S1 | E1 |
|-------------|----------|----------|----------------|-----|--------|-----------|-----|-----|---------|----|----------|
| COUNTRY | ABB. | | | | | | | | | | |
| EUROPE | E2 | W02-2584 | L72-0536 (MS3) | NO | LA1837 | YES | YES | NO | NO | NO | F10-1128 |

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

X09-A/8
-CN7

2/3

A

The DC voltage is an actual reading measured with a high impedance type voltmeter as the AM/FM signal generator is specified to the conditions as shown in the list below. The measurement value may vary depending on the measuring instruments used or on the product. The value shown in () is actual reading measured in the AM mode.

| MODE | CARRIER | MODULATION | | ANT INPUT |
|------|--------------|------------|------------------------------|-----------|
| | | FREQUENCY | DEVIATION | |
| FM | 98MHz | 1kHz | STEREO 67.5kHz 7.5kHz(Pilot) | 60dB |
| AM | 1000(999)kHz | 400Hz | MONO 30% MOD | 60dB |

AR-404(K,P) (1/3)
KRF-A4020S(M,X,E) (1/3)
KRF-A4030(E) (1/3)
KRF-A4030E(E2) (1/3)

Y05-4040-10

AR-404/KRF-A4030/A4030E/A4030-S

KENWOOD

AUDIO UNIT
(X09-641X-XX)
(A/9)X05-
CN1
1/3
A

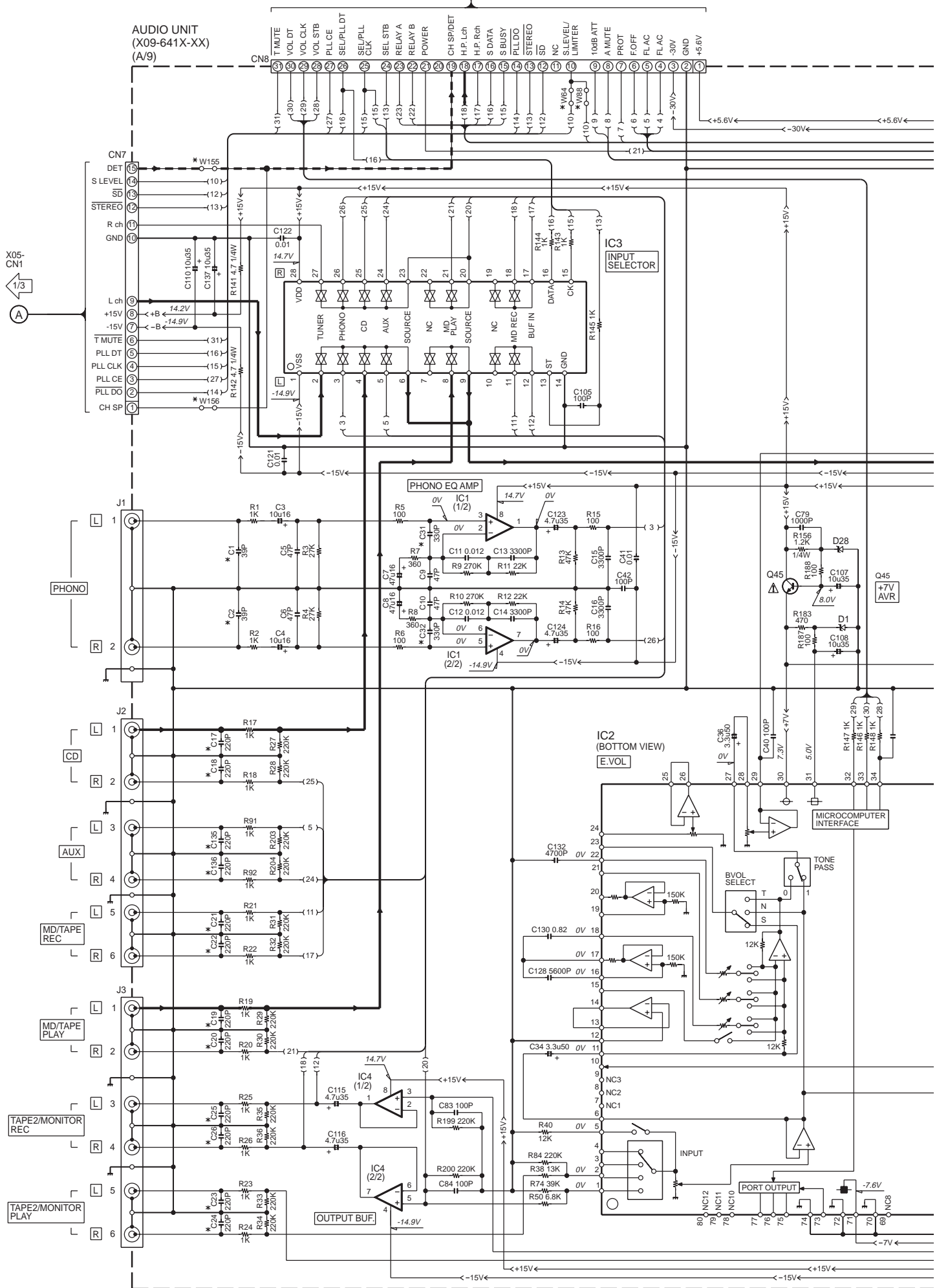
3

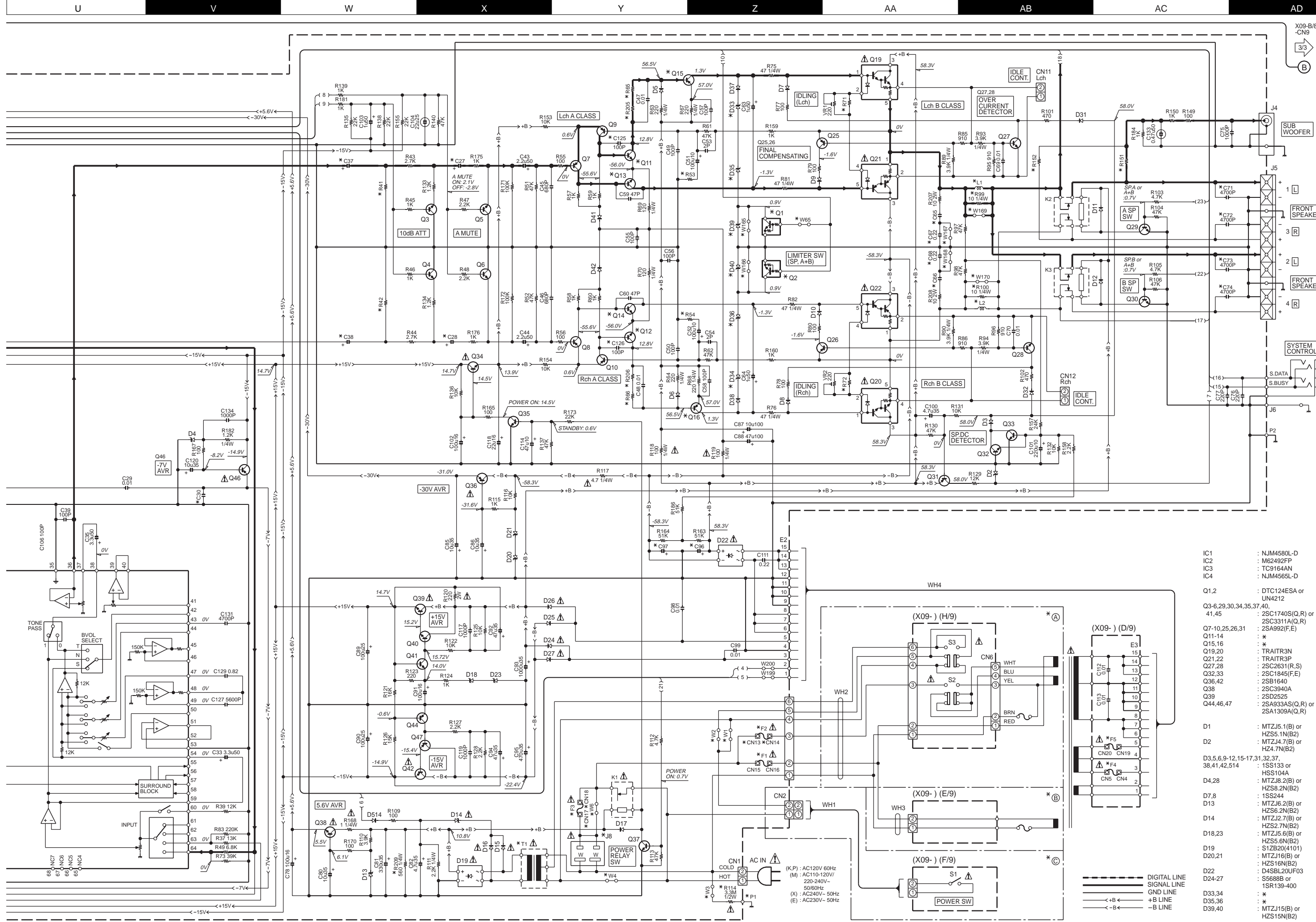
4

5

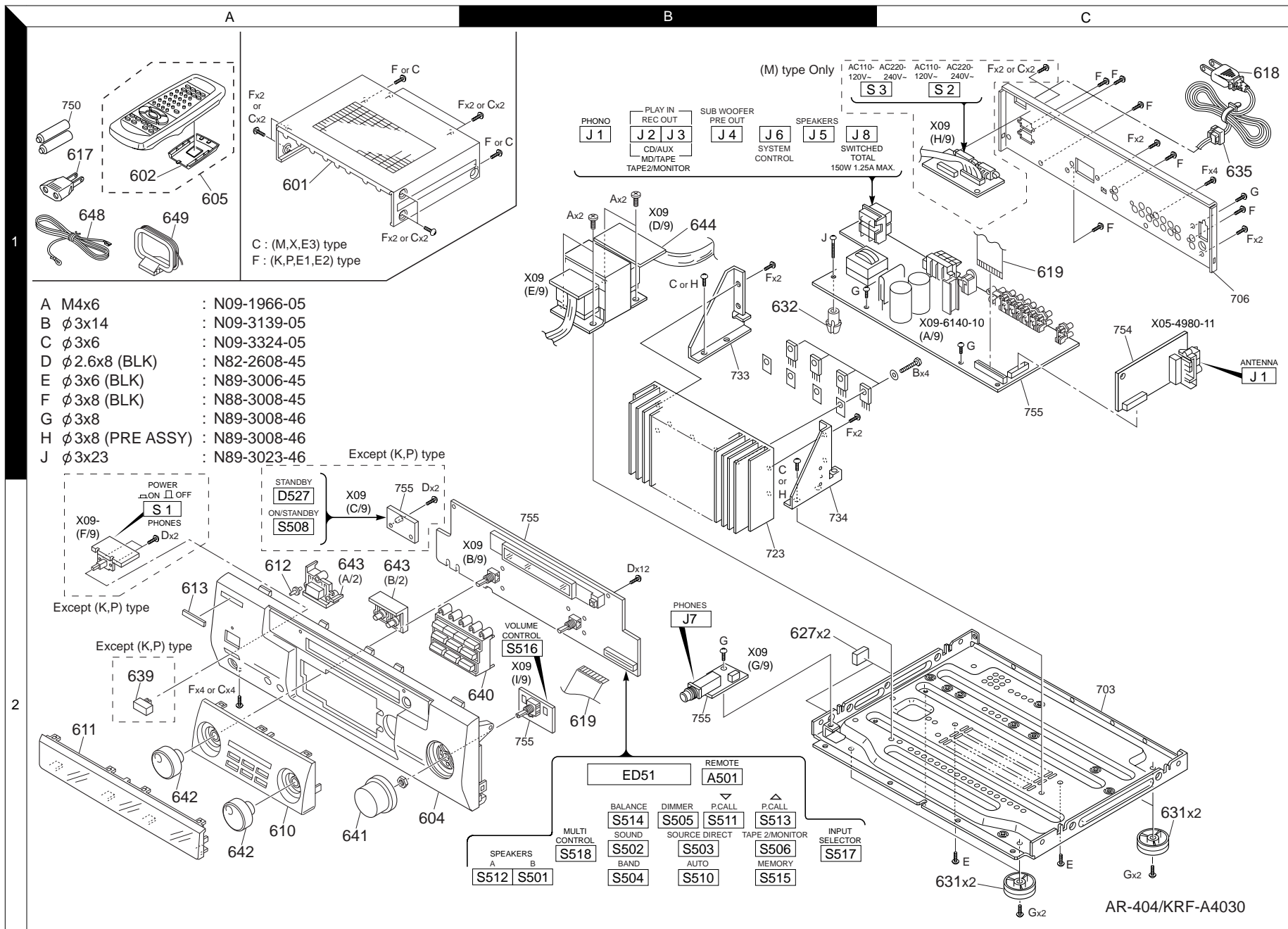
6

7





| DESTINATION | COUNTRY | ABB. | UNIT No. | R41 | R53 | R65,66 | R71 | R99 | R100 | R114 | R151 | C1,2,17-26,31,32 | C27 | C30 | C37 | C65 | C96 | C125 | W1 | W2 | W3 | W4 | W5 | W6 | W7 | W8 | W9 | W10 | W11 | W12 | W13 | W14 | W15 | W16 | W17 | W18 | W19 | W20 | W21 | W22 | W23 | W24 | W25 | W26 | W27 | W28 | W29 | W30 | W31 | W32 | W33 | W34 | W35 | W36 | W37 | W38 | W39 | W40 | W41 | W42 | W43 | W44 | W45 | W46 | W47 | W48 | W49 | W50 | W51 | W52 | W53 | W54 | W55 | W56 | W57 | W58 | W59 | W60 | W61 | W62 | W63 | W64 | W65 | W66 | W67 | W68 | W69 | W70 | W71 | W72 | W73 | W74 | W75 | W76 | W77 | W78 | W79 | W80 | W81 | W82 | W83 | W84 | W85 | W86 | W87 | W88 | W89 | W90 | W91 | W92 | W93 | W94 | W95 | W96 | W97 | W98 | W99 | W100 | W101 | W102 | W103 | W104 | W105 | W106 | W107 | W108 | W109 | W110 | W111 | W112 | W113 | W114 | W115 | W116 | W117 | W118 | W119 | W120 | W121 | W122 | W123 | W124 | W125 | W126 | W127 | W128 | W129 | W130 | W131 | W132 | W133 | W134 | W135 | W136 | W137 | W138 | W139 | W140 | W141 | W142 | W143 | W144 | W145 | W146 | W147 | W148 | W149 | W150 | W151 | W152 | W153 | W154 | W155 | W156 | W157 | W158 | W159 | W160 | W161 | W162 | W163 | W164 | W165 | W166 | W167 | W168 | W169 | W170 | W171 | W172 | W173 | W174 | W175 | W176 | W177 | W178 | W179 | W180 | W181 | W182 | W183 | W184 | W185 | W186 | W187 | W188 | W189 | W190 | W191 | W192 | W193 | W194 | W195 | W196 | W197 | W198 | W199 | W200 | W201 | W202 | W203 | W204 | W205 | W206 | W207 | W208 | W209 | W210 | W211 | W212 | W213 | W214 | W215 | W216 | W217 | W218 | W219 | W220 | W221 | W222 | W223 | W224 | W225 | W226 | W227 | W228 | W229 | W230 | W231 | W232 | W233 | W234 | W235 | W236 | W237 | W238 | W239 | W240 | W241 | W242 | W243 | W244 | W245 | W246 | W247 | W248 | W249 | W250 | W251 | W252 | W253 | W254 | W255 | W256 | W257 | W258 | W259 | W260 | W261 | W262 | W263 | W264 | W265 | W266 | W267 | W268 | W269 | W270 | W271 | W272 | W273 | W274 | W275 | W276 | W277 | W278 | W279 | W280 | W281 | W282 | W283 | W284 | W285 | W286 | W287 | W288 | W289 | W290 | W291 | W292 | W293 | W294 | W295 | W296 | W297 | W298 | W299 | W300 | W301 | W302 | W303 | W304 | W305 | W306 | W307 | W308 | W309 | W310 | W311 | W312 | W313 | W314 | W315 | W316 | W317 | W318 | W319 | W320 | W321 | W322 | W323 | W324 | W325 | W326 | W327 | W328 | W329 | W330 | W331 | W332 | W333 | W334 | W335 | W336 | W337 | W338 | W339 | W340 | W341 | W342 | W343 | W344 | W345 | W346 | W347 | W348 | W349 | W350 | W351 | W352 | W353 | W354 | W355 | W356 | W357 | W358 | W359 | W360 | W361 | W362 | W363 | W364 | W365 | W366 | W367 | W368 | W369 | W370 | W371 | W372 | W373 | W374 | W375 | W376 | W377 | W378 | W379 | W380 | W381 | W382 | W383 | W384 | W385 | W386 | W387 | W388 | W389 | W390 | W391 | W392 | W393 | W394 | W395 | W396 | W397 | W398 | W399 | W400 | W401 | W402 | W403 | W404 | W405 | W406 | W407 | W408 | W409 | W410 | W411 | W412 | W413 | W414 | W415 | W416 | W417 | W418 | W419 | W420 | W421 | W422 | W423 | W424 | W425 | W426 | W427 | W428 | W429 | W430 | W431 | W432 | W433 | W434 | W435 | W436 | W437 | W438 | W439 | W440 | W441 | W442 | W443 | W444 | W445 | W446 | W447 | W448 | W449 | W450 | W451 | W452 | W453 | W454 | W455 | W456 | W457 | W458 | W459 | W460 | W461 | W462 | W463 | W464 | W465 | W466 | W467 | W468 | W469 | W470 | W471 | W472 | W473 | W474 | W475 | W476 | W477 | W478 | W479 | W480 | W481 | W482 | W483 | W484 | W485 | W486 | W487 | W488 | W489 | W490 | W491 | W492 | W493 | W494 | W495 | W496 | W497 | W498 | W499 | W500 | W501 | W502 | W503 | W504 | W505 | W506 | W507 | W508 | W509 | W510 | W511 | W512 | W513 | W514 | W515 | W516 | W517 | W518 | W519 | W520 | W521 | W522 | W523 | W524 | W525 | W526 | W527 | W528 | W529 | W530 | W531 | W532 | W533 | W534 | W535 | W536 | W537 | W538 | W539 | W540 | W541 | W542 | W543 | W544 | W545 | W546 | W547 | W548 | W549 | W550 | W551 | W552 | W553 | W554 | W555 | W556 | W557 | W558 | W559 | W560 | W561 | W562 | W563 | W564 | W565 | W566 | W567 | W568 | W569 | W570 | W571 | W572 | W573 | W574 | W575 | W576 | W577 | W578 | W579 | W580 | W581 | W582 | W583 | W584 | W585 | W586 | W587 | W588 | W589 | W590 | W591 | W592 | W593 | W594 | W595 | W596 | W597 | W598 | W599 | W600 | W601 | W602 | W603 | W604 | W605 | W606 | W607 | W608 | W609 | W610 | W611 | W612 | W613 | W614 | W615 | W616 | W617 | W618 | W619 | W620 | W621 | W622 | W623 | W624 | W625 | W626 | W627 | W628 | W629 | W630 | W631 | W632 | W633 | W634 | W635 | W636 | W637 | W638 | W639 | W640 | W641 | W642 | W643 | W644 | W645 | W646 | W647 | W648 | W649 | W650 | W651 | W652 | W653 | W654 | W655 | W656 | W657 | W658 | W659 | W660 | W661 | W662 | W663 | W664 | W665 | W666 | W667 | W668 | W669 | W670 | W671 | W672 | W673 | W674 | W675 | W676 | W677 | W678 | W679 | W680 | W681 | W682 | W683 | W684 | W685 | W686 | W687 | W688 | W689 | W690 | W691 | W692 | W693 | W694 | W695 | W696 | W697 | W698 | W699 | W700 | W701 | W702 | W703 | W704 | W705 | W706 | W707 | W708 | W709 | W710 | W711 | W712 | W713 | W714 | W715 | W716 | W717 | W718 | W719 | W720 | W721 | W722 | W723 | W724 | W725 | W726 | W727 | W728 | W729 | W730 | W731 | W732 | W733 | W734 | W735 | W736 | W737 | W738 | W739 | W740 | W741 | W742 | W743 | W744 | W745 | W746 | W747 | W748 | W749 | W750 | W751 | W752 | W753 | W754 | W755 | W756 | W757 | W758 | W759 | W760 | W761 | W762 | W763 | W764 | W765 | W766 | W767 | W768 | W769 | W770 | W771 | W772 | W773 | W774 | W775 | W776 | W777 | W778 | W779 | W780 | W781 | W782 | W783 | W784 | W785 | W786 | W787 | W788 | W789 | W790 | W791 | W792 | W793 | W794 | W795 | W796 | W797 | W798 | W799 | W800 | W801 | W802 | W803 | W804 | W805 | W806 | W807 | W808 | W809 | W810 | W811 | W812 | W813 | W814 | W815 | W816 | W817 | W818 | W819 | W820 | W821 | W822 | W823 | W824 | W825 | W826 | W827 | W828 | W829 | W830 | W831 | W832 | W833 | W834 | W835 | W836 | W837 | W838 | W839 | W840 | W841 | W842 | W843 | W844 | W845 | W846 | W847 | W848 | W849 | W850 | W851 | W852 | W853 | W854 | W855 | W856 | W857 | W858 | W859 | W860 | W861 | W862 | W863 | W864 | W865 | W866 | W867 | W868 | W869 | W870 | W871 | W872 | W873 | W874 | W875 | W876 | W877 | W878 | W879 | W880 | W881 | W882 | W883 | W884 | W885 | W886 | W887 | W888 | W889 | W890 | W891 | W892 | W893 | W894 | W895 | W896 | W897 | W898 | W899 | W900 | W901 | W902 | W903 | W904 | W905 | W906 | W907 | W908 | W909 | W910 | W911 | W912 | W913 | W914 | W915 | W916 | W917 | W918 | W919 | W920 | W921 | W922 | W923 | W924 | W925 | W926 | W927 | W928 | W929 | W930 | W931 | W932 | W933 | W934 | W935 | W936 | W937 | W938 | W939 | W940 | W941 | W942 | W943 | W944 | W945 | W946 | W947 | W948 | W949 | W950 | W951 | W952 | W953 | W954 | W955 | W956 | W957 | W958 | W959 | W960 | W961 | W962 | W963 | W964 | W965 | W966 | W967 | W968 | W969 | W970 | W971 | W972 | W973 | W974 | W975 | W976 | W977 | W978 | W979 | W980 | W981 | W982 | W983 | W984 | W985 | W986 | W987 | W988 | W989 | W990 | W991 | W992 | W993 | W994 | W995 | W996 | W997 | W998 | W999 | W1000 | W1001 | W1002 | W1003 | W1004 | W1005 | W1006 | W1007 | W1008 | W1009 | W1010 | W1011 | W1012 | W1013 | W1014 | W1015 | W1016 | W1017 | W1018 | W1019 | W1020 | W1021 | W1022 | W1023 | W1024 | W1025 | W1026 | W1027 | W1028 | W1029 | W1030 | W1031 | W1032 | W1033 | W1034 | W1035 | W1036 | W1037 | W1038 | W1039 | W1040 | W1041 | W1042 | W1043 | W1044 | W1045 | W1046 | W1047 | W1048 | W1049 | W1050 | W1051 | W1052 | W1053 | W1054 | W1055 | W1056 | W1057 | W1058 | W1059 | W1060 | W1061 | W1062 | W1063 | W1064 | W1065 | W1066 | W1067 | W1068 | W1069 | W1070 | W1071 | W1072 | W1073 | W1074 | W1075 | W1076 | W1077 | W1078 | W1079 | W1080 | W1081 | W1082 | W1083 | W1084 | W1085 | W1086 | W1087 | W1088 | W1089 | W1090 | W1091 | W1092 | W1093 | W1094 | W1095 | W1096 | W1097 | W1098 | W1099 | W1100 | W1101 | W1102 | W1103 | W1104 | W1105 | W1106 | W1107 | W1108 | W1109 | W1110 | W1111 | W1112 | W1113 | W1114 | W1115 | W1116 | W1117 | W1118 | W1119 | W1120 | W1121 | W1122 | W1123 | W1124 | W1125 | W1126 | W1127 | W1128 | W1129 | W1130 | W1131 | W1132 | W1133 | W1134 | W1135 | W1136 | W1137 | W1138 | W1139 | W1140 | W1141 | W1142 | W1143 | W1144 | W1145 | W1146 | W1147 | W1148 | W1149 | W1150 | W1151 | W1152 | W1153 | W1154 | W1155 | W1156 | W1157 | W1158 | W1159 | W1160 | W1161 | W1162 | W1163 | W1164 | W1165 | W1166 | W1167 | W1168 | W1169 | W1170 | W1171 | W1172 | W1173 | W1174 | W1175 | W1176 | W1177 | W1178 | W1179 | W1180 | W1181 | W1182 | W1183 | W1184 | W1185 | W1186 | W1187 | W1188 | W1189 | W1190 | W1191 | W1192 | W1193 | W1194 | W1195 | W1196 | W1197 | W1198 | W1199 | W1200 | W1201 | W1202 | W1203 | W1204 | W1205 | W1206 | W1207 | W1208 | W1209 | W1210 | W1211 | W1212 | W1213 | W1214 | W1215 | W1216 | W1217 | W1218 | W1219 | W1220 | W1221 | W1222 | W1223 | W1224 | W1225 | W1226 | W1227 | W1228 | W1229 | W1230 | W1231 | W1232 | W1233 | W1234 | W1235 | W1236 | W1237 | W1238 | W1239 | W1240 | W1241 | W1242 | W1243 | W1244 | W1245 | W1246 | W1247 | W1248 | W1249 | W1250 | W1251 | W1252 | W1253 | W1254 | W1255 | W1256 | W1257 | W1258 | W1259 | W1260 | W1261 | W1262 | W1263 | W1264 | W1265 | W1266 | W1267 | W1268 | W1269 | W1270 | W1271 | W1272 | W1273 | W1274 | W1275 | W1276 | W1277 | W1278 | W1279 | W1280 | W1281 | W1282 | W1283 | W1284 | W1285 | W1286 | W1287 | W1288 | W1289 | W1290 | W1291 | W1292 | W1293 | W1294 | W1295 | W1296 | W1297 | W1298 | W1299 | W1300 | W1301 | W1302 | W1303 | W1304 | W1305 | W1306 | W1307 | W1308 | W1309 | W13 |
|-------------|---------|------|----------|-----|-----|--------|-----|-----|------|------|------|------------------|-----|-----|-----|-----|-----|------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
|-------------|---------|------|----------|-----|-----|--------|-----|-----|------|------|------|------------------|-----|-----|-----|-----|-----|------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|



* New Parts

Parts without **Parts No.** are not supplied.
Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

1

| Ref. No | Add-ress | New Parts | Parts No. | Description | Desti-nation | Re-marks |
|--|----------|-----------|-------------|-------------------------------|--------------|----------|
| AR-404/KRF-A4030/A4030E/A4030-S | | | | | | |
| 601 | 1A | * | A01-3733-01 | METALLIC CABINET | E2 | |
| 601 | 1A | * | A01-3733-01 | METALLIC CABINET | KPE1 | |
| 601 | 1A | * | A01-3734-01 | METALLIC CABINET | MXE3 | |
| 602 | 1A | | A09-1123-08 | BATTERY COVER | | |
| 604 | 2A | * | A60-1762-01 | PANEL | KP | |
| 604 | 2A | * | A60-1763-01 | PANEL | E1E2 | |
| 604 | 2A | * | A60-1764-01 | PANEL | MXE3 | |
| 605 | 1A | | A70-1266-05 | REMOTE CONTROL ASSY(RC-R0709) | KPM | |
| 605 | 1A | | A70-1266-05 | REMOTE CONTROL ASSY(RC-R0709) | X | |
| 605 | 1A | | A70-1267-05 | REMOTE CONTROL ASSY(RC-R0708) | E1E2E3 | |
| 610 | 2A | * | B07-2479-02 | ESCUTCHEON | KP | |
| 610 | 2A | * | B07-2480-02 | ESCUTCHEON | E3 | |
| 610 | 2A | * | B07-2504-02 | ESCUTCHEON | MX | |
| 610 | 2A | * | B07-2506-02 | ESCUTCHEON | E1E2 | |
| 611 | 2A | * | B10-3576-02 | FRONT GLASS | KP | |
| 611 | 2A | * | B10-3577-02 | FRONT GLASS | MX | |
| 611 | 2A | * | B10-3578-12 | FRONT GLASS | E1E2E3 | |
| 612 | 2A | * | B12-0385-04 | INDICATOR | | |
| 613 | 2A | | B43-0314-04 | KENWOOD BADGE | | |
| - | | | B46-0096-53 | WARRANTY CARD | X | |
| - | | | B46-0310-03 | WARRANTY CARD | E1E2E3 | |
| - | | | B46-0328-03 | WARRANTY CARD | K | |
| - | | | B46-0346-00 | QUESTIONAIRE CARD | K | |
| - | | | B46-0347-03 | WARRANTY CARD | P | |
| - | | | B58-0964-13 | CAUTION CARD (UL) | K | |
| - | | | B58-0965-13 | CAUTION CARD (T,XtypePL) | X | |
| - | | | B58-0966-13 | CAUTION CARD (ELMtypePL) | ME1E3 | |
| - | | * | B58-0967-03 | CAUTION CARD (PtypePL) | P | |
| - | | * | B58-1607-03 | CAUTION CARD | E2 | |
| - | | * | B60-4556-00 | INSTRUCTION MANUAL (EN) | KPM | |
| - | | * | B60-4556-00 | INSTRUCTION MANUAL (EN) | X | |
| - | | * | B60-4557-00 | INSTRUCTION MANUAL (EN) | P | |
| - | | * | B60-4558-00 | INSTRUCTION MANUAL (FR) | M | |
| - | | * | B60-4559-00 | INSTRUCTION MANUAL (EN/TC) | E1E3 | |
| - | | * | B60-4560-00 | INSTRUCTION MANUAL (FR/NE) | E1E3 | |
| - | | * | B60-4561-00 | INSTRUCTION MANUAL (IT/ES) | E1E3 | |
| - | | * | B60-4562-00 | INSTRUCTION MANUAL (GE) | E1E3 | |
| - | | * | B60-4563-00 | INSTRUCTION MANUAL (RU//PL) | E2 | |
| - | | * | B60-4564-00 | INSTRUCTION MANUAL (HU/CZ) | E2 | |
| Δ 617 | 1A | | E03-0115-05 | AC PLUG ADAPTER | M | |
| Δ 618 | 1C | | E30-2717-05 | AC POWER CORD | X | |
| Δ 618 | 1C | * | E30-2941-05 | AC POWER CORD | KP | |
| Δ 618 | 1C | * | E30-2942-05 | AC POWER CORD | E3 | |
| Δ 618 | 1C | * | E30-2942-05 | AC POWER CORD | ME1E2 | |
| 619 | 1C,2B | | E35-1772-05 | FLAT CABLE | | |
| 627 | 2B | | G11-2416-04 | CUSHION | | |
| - | | * | H10-7628-02 | POLYSTYRENE FOAMED FIXTURE | | |
| - | | * | H10-7629-02 | POLYSTYRENE FOAMED FIXTURE | | |
| - | | | H25-0232-04 | PROTECTION BAG (235X350X0.03) | | |
| - | | | H25-0391-04 | PROTECTION BAG | | |
| - | | * | H50-3616-04 | ITEM CARTON CASE | KP | |

L : Scandinavia K : USA P : Canada R : Mexico C : China I : Malaysia

Y : PX(Far East,Hawaii) T : England E : Europe G : Germany V : China(Shanghai)

Y : AAFES(Europe) X : Australia Q : Russia H : Korea M : Other Areas Δ indicates safety critical components .

* New Parts

Parts without **Parts No.** are not supplied.
Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

2

| Ref. No | Add-ress | New Parts | Parts No. | Description | Desti-nation | Re-marks |
|---------------------------------|----------|-----------|---------------|----------------------|--------------|----------|
| - | | * | H50-3617-04 | ITEM CARTON CASE | E1 | |
| - | | * | H50-3618-04 | ITEM CARTON CASE | M | |
| - | | * | H50-3619-04 | ITEM CARTON CASE | XE3 | |
| - | | * | H50-3650-04 | ITEM CARTON CASE | E2 | |
| 631 | 2C | * | J02-1464-03 | FOOT | | |
| 632 | 1B | | J19-3752-14 | UNIT HOLDER | | |
| 635 | 1C | | J42-0083-05 | POWER CORD BUSHING | | |
| - | | | J61-0307-05 | WIRE BAND | | |
| 639 | 2A | * | K27-2384-04 | KNOB (BUTTON) | E1E2 | |
| 639 | 2A | * | K27-2385-04 | KNOB (BUTTON) | MXE3 | |
| 640 | 2B | * | K29-7675-12 | KNOB | E2 | |
| 640 | 2B | * | K29-7675-12 | KNOB | KPE1 | |
| 640 | 2B | * | K29-7676-12 | KNOB | MXE3 | |
| 641 | 2A | * | K29-7678-04 | KNOB (VOLUME) | E2 | |
| 641 | 2A | * | K29-7678-04 | KNOB (VOLUME) | KPE1 | |
| 641 | 2A | * | K29-7679-04 | KNOB (VOLUME) | MXE3 | |
| 642 | 2A | * | K29-7681-14 | KNOB (MULTI/INPUT) | E2 | |
| 642 | 2A | * | K29-7681-14 | KNOB (MULTI/INPUT) | KPE1 | |
| 642 | 2A | * | K29-7682-14 | KNOB (MULTI/INPUT) | MXE3 | |
| 643 | 2A | * | K29-7687-03 | KNOB (SPEAKER/POWER) | E2 | |
| 643 | 2A | * | K29-7687-03 | KNOB (SPEAKER/POWER) | KPE1 | |
| 643 | 2A | * | K29-7688-03 | KNOB (SPEAKER/POWER) | MXE3 | |
| Δ 644 | 1B | | L07-2638-05 | POWER TRANSFORMER | E1E2E3 | |
| Δ 644 | 1B | | L07-2639-05 | POWER TRANSFORMER | M | |
| Δ 644 | 1B | | L07-2691-05 | POWER TRANSFORMER | X | |
| Δ 644 | 1B | * | L07-2801-05 | POWER TRANSFORMER | KP | |
| 648 | 1A | | T90-0836-05 | LEAD WIRE ANTENNA | | |
| 649 | 1A | * | T90-0852-05 | LOOP ANTENNA | | |
| TUNER UNIT (X05-498X-XX) | | | | | | |
| C1 | | | CK73FB1H223K | CHIP C | 0.022UF | K |
| C2 | | | CK73FB1H103K | CHIP C | 0.010UF | K |
| C3 | | | CK73FB1H103K | CHIP C | 0.010UF | K |
| C5 ,6 | | | CK73FB1H103K | CHIP C | 0.010UF | K |
| C7 | | | CE04LW1C470M | ELECTRO | 47UF | 16WV |
| C8 | | | CK73EB1H103K | CHIP C | 0.010UF | K |
| C10 | | | CE04LW1C470M | ELECTRO | 47UF | 16WV |
| C11 ,12 | | | CK73FB1H473K | CHIP C | 0.047UF | K |
| C14 | | | CE04LW1C100M | ELECTRO | 10UF | 16WV |
| C15 | | | CE04LW1H010M | ELECTRO | 1.0UF | 50WV |
| C16 | | | C90-3251-05 | ELECTRO | 0.47UF | 50WV |
| C17 | | | CE04LW1H010M | ELECTRO | 1.0UF | 50WV |
| C18 | | | CC73FCH1H470J | CHIP C | 47PF | J |
| C19 | | | C90-3217-05 | ELECTRO | 10UF | 10WV |
| C20 | | | CK73FB1H473K | CHIP C | 0.047UF | K |
| C21 | | | C90-3241-05 | ELECTRO | 3.3UF | 35WV |
| C22 | | | CK73FB1H473K | CHIP C | 0.047UF | K |
| C23 | | | CE04LW1C100M | ELECTRO | 10UF | 16WV |
| C24 | | | CK73FB1H331K | CHIP C | 330PF | K |
| C25 | | | CC73FCH1H181J | CHIP C | 180PF | J |
| C25 | | | CC73FCH1H471J | CHIP C | 470PF | J |
| C26 | | | CK73FB1H183K | CHIP C | 0.018UF | K |
| C26 | | | CK73FB1H223K | CHIP C | 0.022UF | K |
| C27 | | | CE04HW1E4R7M | NP-ELEC | 4.7UF | 25WV |
| C28 ,29 | | | CE04LW1H2R2M | ELECTRO | 2.2UF | 50WV |

L : Scandinavia K : USA P : Canada R : Mexico C : China I : Malaysia

Y : PX(Far East,Hawaii) T : England E : Europe G : Germany V : China(Shanghai)

Y : AAFES(Europe) X : Australia Q : Russia H : Korea M : Other Areas Δ indicates safety critical components .


PARTS LIST

AR-404/KRF-A4030/A4030E/A4030-S

* New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

3

| Ref. No | Add-ress | New Parts | Parts No. | Description | Desti-nation | Re-marks |
|---|----------|-----------|--|--|--------------------------|----------|
| C30 ,31 C30 ,31 C30 ,31 C32 C33 ,34 | | | CK73FB1H223K CK73FB1H223K CK73FB1H333K CE04LW1V4R7M CK73FB1H103K | CHIP C 0.022UF K CHIP C 0.022UF K CHIP C 0.033UF K ELECTRO 4.7UF 35WV CHIP C 0.010UF K | E2E3 MXE1 KP M | |
| C35 C35 C36 C37 ,38 C39 | | | CK73FB1H332K CK73FB1H332K CK73FB1H103K CE04LW1C100M CC73FCH1H060D | CHIP C 3300PF K CHIP C 3300PF K CHIP C 0.010UF K ELECTRO 10UF 16WV CHIP C 6.0PF D | KPM X | |
| C40 C41 C42 C43 C44 | | | CC73FCH1H020C CC73FCH1H220J CC73FCH1H120J CC73FCH1H100D CK73FB1H471K | CHIP C 2.0PF C CHIP C 22PF J CHIP C 12PF J CHIP C 10PF D CHIP C 470PF K | | |
| C45 C46 C47 C48 C49 | | | CC73FCH1H220J CE04LW1C100M CK73FB1H102K CE04LW1C470M CE04LW1H2R2M | CHIP C 22PF J ELECTRO 10UF 16WV CHIP C 1000PF K ELECTRO 47UF 16WV ELECTRO 2.2UF 50WV | | |
| C50 C51 C52 C70 ,71 C72 | | | CC73FSL1H101J CK73FB1H471K CC73FSL1H101J CK73FB1H822K CE04LW1H010M | CHIP C 100PF J CHIP C 470PF K CHIP C 100PF J CHIP C 8200PF K ELECTRO 1.0UF 50WV | E1E2E3 | |
| C73 C74 C75 C76 C77 | | | CE04LW1C470M CK73FB1H102K CC73FCH1H030C CC73FCH1H470J CC73FSL1H101J | ELECTRO 47UF 16WV CHIP C 1000PF K CHIP C 3.0PF C CHIP C 47PF J CHIP C 100PF J | KP M | |
| C78 C79 ,80 C81 C82 C82 | | | CK73FB1H223K CK73FB1H472K CK73FF1C105Z CK73FB1H103K CK73FB1H103K | CHIP C 0.022UF K CHIP C 4700PF K CHIP C 1.0UF Z CHIP C 0.010UF K CHIP C 0.010UF K | E1E2E3 E2E3 KPE1 | |
| C83 C84 ,85 C86 C88 C89 ,90 | | | CC73FSL1H101J CK73FB1H223K CK73FB1H471K CK73FB1H332K CK73FB1H472K | CHIP C 100PF J CHIP C 0.022UF K CHIP C 470PF K CHIP C 3300PF K CHIP C 4700PF K | | KPMX |
| C91 | | | CK73FF1C105Z | CHIP C 1.0UF Z | | |
| CN1 CN2 CN2 J1 J1 | | | E40-9831-05 E40-4871-05 E40-4871-05 E20-0321-05 E70-0052-05 | SOCKET FOR PIN ASSY PIN ASSY PIN ASSY LOCK TERMINAL BOARD(2P,F) LOCK TERMINAL BOARD | E2E3 KPE1 | |
| E1 E1 E1 | | | F10-1128-14 F10-1129-14 F10-1129-14 | SHIELDING PLATE SHIELDING PLATE SHIELDING PLATE | E1E2E3 KPM X | |
| CF1 ,2 CF1 ,2 CF1 ,2 CF3 L1 | | | L72-0531-05 L72-0536-05 L72-0596-05 L72-0607-05 L39-1384-05 | CERAMIC FILTER CERAMIC FILTER CERAMIC FILTER CERAMIC FILTER COMBINATION COIL | MX E1E2E3 KP MX | |

L : Scandinavia K : USA P : Canada R : Mexico C : China I : Malaysia
Y : PX(Far East,Hawaii) T : England E : Europe G : Germany V : China(Shanghai)
Y : AAFES(Europe) X : Australia Q : Russia H : Korea M : Other Areas  indicates safety critical components .

* New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

4

| Ref. No | Add-ress | New Parts | Parts No. | Description | Desti-nation | Re-marks |
|---|----------|-----------|--|--|------------------------------------|----------|
| L2 L3 L4 L4 L5 | | | L40-1091-17 L30-0911-05 L30-0950-05 L30-0950-05 L30-0951-05 | SMALL FIXED INDUCTOR(1UH) AM IFT FM IFT FM IFT FM IFT | E2E3 KPE1 E2E3 | |
| L5 L6 ,7 L9 X1 | | | L30-0951-05 L79-1239-05 L40-1001-17 L77-2232-05 | FM IFT LC FILTER SMALL FIXED INDUCTOR(10UH,K) CRYSTAL RESONATOR | KPE1 E1E2E3 | |
| R1 R4 R5 R6 R7 | | | RK73FB2A101J RK73FB2A681J RK73FB2A332J RK73FB2A221J RK73FB2A821J | CHIP R 100 J 1/10W CHIP R 680 J 1/10W CHIP R 3.3K J 1/10W CHIP R 220 J 1/10W CHIP R 820 J 1/10W | | |
| R8 R8 R9 R10 R11 | | | RK73FB2A100J RK73FB2A330J RK73FB2A391J RK73FB2A102J RK73FB2A220J | CHIP R 10 J 1/10W CHIP R 33 J 1/10W CHIP R 390 J 1/10W CHIP R 1.0K J 1/10W CHIP R 22 J 1/10W | E1E2E3 KPMX | |
| R11 R12 R14 R14 R14 | | | RK73FB2A330J RK73FB2A101J RK73FB2A101J RK73FB2A101J RK73FB2A271J | CHIP R 33 J 1/10W CHIP R 100 J 1/10W CHIP R 100 J 1/10W CHIP R 100 J 1/10W CHIP R 270 J 1/10W | KPMX E2E3 KPE1 MX | |
| R15 R15 R16 R17 R18 | | | RK73FB2A333J RK73FB2A333J RK73FB2A220J RK73FB2A362J RK73FB2A302J | CHIP R 33K J 1/10W CHIP R 33K J 1/10W CHIP R 22 J 1/10W CHIP R 3.6K J 1/10W CHIP R 3.0K J 1/10W | E2E3 KPE1 | |
| R19 R20 R23 R23 R23 | | | RK73FB2A822J RK73FB2A392J RK73FB2A153J RK73FB2A332J RK73FB2A472J | CHIP R 8.2K J 1/10W CHIP R 3.9K J 1/10W CHIP R 15K J 1/10W CHIP R 3.3K J 1/10W CHIP R 4.7K J 1/10W | E1E2E3 MX KP | |
| R25 R25 R25 R27 ,28 R27 ,28 | | | RK73FB2A183J RK73FB2A223J RK73FB2A273J RK73FB2A432J RK73FB2A622J | CHIP R 18K J 1/10W CHIP R 22K J 1/10W CHIP R 27K J 1/10W CHIP R 4.3K J 1/10W CHIP R 6.2K J 1/10W | MX KP E1E2E3 E1E2E3 KP | |
| R27 ,28 R29 R30 R31 R32 | | | RK73FB2A752J RK73FB2A101J RK73FB2A561J RK73FB2A473J RK73FB2A272J | CHIP R 7.5K J 1/10W CHIP R 100 J 1/10W CHIP R 560 J 1/10W CHIP R 47K J 1/10W CHIP R 2.7K J 1/10W | MX M M M KPM | |
| R32 R33 ,34 R35 R36 R37 | | | RK73FB2A272J RK73FB2A102J RK73FB2A101J RK73FB2A102J RK73FB2A392J | CHIP R 2.7K J 1/10W CHIP R 1.0K J 1/10W CHIP R 100 J 1/10W CHIP R 1.0K J 1/10W CHIP R 3.9K J 1/10W | X E1E2E3 E1E2E3 E1E2E3 | |
| R38 R39 R42 R43 R44 | | | RK73FB2A102J RK73FB2A103J RK73FB2A103J RK73FB2A221J RD14NB2E271J | CHIP R 1.0K J 1/10W CHIP R 10K J 1/10W CHIP R 10K J 1/10W CHIP R 220 J 1/10W RD 270 J 1/4W | E1E2E3 E1E2E3 | |



L : Scandinavia K : USA P : Canada R : Mexico C : China I : Malaysia
Y : PX(Far East,Hawaii) T : England E : Europe G : Germany V : China(Shanghai)
Y : AAFES(Europe) X : Australia Q : Russia H : Korea M : Other Areas  indicates safety critical components .

PARTS LIST

AR-404/KRF-A4030/A4030E/A4030-S

* New Parts

Parts without **Parts No.** are not supplied.
Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

5

| Ref. No | Add-ress | New Parts | Parts No. | Description | Desti-nation | Re-marks |
|---------|----------|-----------|--------------|------------------------------|--------------|----------|
| R45 | | | RK73EB2B102J | CHIP R 1.0K J 1/8W | | |
| R46 | | | RK73FB2A102J | CHIP R 1.0K J 1/10W | | |
| R47 | | | RK73EB2B102J | CHIP R 1.0K J 1/8W | | |
| R48 | | | RK73FB2A102J | CHIP R 1.0K J 1/10W | | |
| R49 | | | RK73FB2A103J | CHIP R 10K J 1/10W | | |
| △ R50 | | | RD14NB2E471J | RD 470 J 1/4W | | |
| R51 | | | RK73FB2A562J | CHIP R 5.6K J 1/10W | | |
| R52 | | | RK73FB2A101J | CHIP R 100 J 1/10W | | |
| R53 | | | RK73FB2A222J | CHIP R 2.2K J 1/10W | | |
| R54 | | | RK73FB2A102J | CHIP R 1.0K J 1/10W | | |
| R55 | | | RK73FB2A333J | CHIP R 33K J 1/10W | | |
| R56 ,57 | | | RK73FB2A102J | CHIP R 1.0K J 1/10W | | |
| R58 | | | RK73FB2A123J | CHIP R 12K J 1/10W | | |
| R59 | | | RK73FB2A122J | CHIP R 1.2K J 1/10W | | |
| R72 ,73 | | | RK73FB2A153J | CHIP R 15K J 1/10W | KP | |
| R72 ,73 | | | RK73FB2A392J | CHIP R 3.9K J 1/10W | E1E2E3 | |
| R72 ,73 | | | RK73FB2A822J | CHIP R 8.2K J 1/10W | MX | |
| R74 | | | RK73FB2A473J | CHIP R 47K J 1/10W | | |
| R75 | | | RK73FB2A822J | CHIP R 8.2K J 1/10W | | |
| R76 | | | RK73FB2A182J | CHIP R 1.8K J 1/10W | | |
| R78 | | | RK73FB2A821J | CHIP R 820 J 1/10W | | |
| R79 | | | RK73FB2A332J | CHIP R 3.3K J 1/10W | | |
| R80 | | | RK73FB2A223J | CHIP R 22K J 1/10W | E1E2E3 | |
| △ R81 | | | RS14KB3A151J | FL-PROOF RS 150 J 1W | | |
| R82 | | | RK73FB2A272J | CHIP R 2.7K J 1/10W | E2E3 | |
| R82 | | | RK73FB2A272J | CHIP R 2.7K J 1/10W | KPE1 | |
| R83 | | | RK73FB2A102J | CHIP R 1.0K J 1/10W | | |
| R84 | | | RK73EB2B102J | CHIP R 1.0K J 1/8W | | |
| R85 -87 | | | RK73FB2A105J | CHIP R 1.0M J 1/10W | | |
| R88 | | | RK73FB2A563J | CHIP R 56K J 1/10W | | |
| R89 | | | RK73FB2A333J | CHIP R 33K J 1/10W | | |
| VR1 | | | R32-0037-05 | SEMI FIXED VARIABLE RESISTOR | | |
| W51 ,52 | | | R92-0670-05 | CHIP R 0 OHM | M | |
| W54 -56 | | | R92-0670-05 | CHIP R 0 OHM | E1E2E3 | |
| W54 ,55 | | | R92-0670-05 | CHIP R 0 OHM | KPX | |
| W54 ,55 | | | R92-0670-05 | CHIP R 0 OHM | KPM | |
| W59 | | | R92-0670-05 | CHIP R 0 OHM | X | |
| W59 ,60 | | | R92-0670-05 | CHIP R 0 OHM | E1E2E3 | |
| W62 | | | R92-0670-05 | CHIP R 0 OHM | | |
| W80 | | | R92-0679-05 | CHIP R 0 OHM | | |
| W82 -85 | | | R92-0679-05 | CHIP R 0 OHM | KPM | |
| W82 -85 | | | R92-0679-05 | CHIP R 0 OHM | X | |
| W84 ,85 | | | R92-0679-05 | CHIP R 0 OHM | E1E2E3 | |
| D1 | | | S62-0034-05 | SLIDE SWITCH | M | |
| D1 | | | DA204U | DIODE | | |
| D1 | | | MA143A | DIODE | | |
| D3 | | | 1SS302 | DIODE | | |
| D3 | | | HZS8.2N(B2) | ZENER DIODE | | |
| D3 | | | MTZJ8.2(B) | ZENER DIODE | | |
| D4 | | | HZS5.1N(B2) | ZENER DIODE | | |
| D4 | | | MTZJ5.1(B) | ZENER DIODE | | |
| D5 | | | HZS2.7N(B2) | ZENER DIODE | | |
| D5 | | | MTZJ2.7(B) | ZENER DIODE | | |

L : Scandinavia K : USA P : Canada R : Mexico C : China I : Malaysia
Y : PX(Far East,Hawaii) T : England E : Europe G : Germany V : China(Shanghai)
Y : AAFES(Europe) X : Australia Q : Russia H : Korea M : Other Areas △ indicates safety critical components .

* New Parts

Parts without **Parts No.** are not supplied.
Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

6

| Ref. No | Add-ress | New Parts | Parts No. | Description | Desti-nation | Re-marks |
|---------------------------------|----------|-----------|---------------|--------------------|--------------|----------|
| D8 | | | MA111 | DIODE | | |
| D9 | | | HZS3.3N(B2) | ZENER DIODE | | |
| D9 | | | MTZJ3.3(B) | ZENER DIODE | | |
| D11 | | | MA111 | DIODE | E1E2E3 | |
| D13 | | | MA111 | DIODE | | |
| IC1 | | | LA1837 | ANALOGUE IC | E2E3 | |
| IC1 | | | LA1837 | ANALOGUE IC | KPE1 | |
| IC1 | | | LA1838 | ANALOGUE IC | MX | |
| IC2 | | | LC72131 | MOS-IC | | |
| Q1 | | | 2SC4081(R,S) | TRANSISTOR | | |
| Q1 | | | 2SD1819A(Q,R) | TRANSISTOR | | |
| Q2 | | | 2SA1576A(R,S) | TRANSISTOR | | |
| Q2 | | | 2SB1218A(Q,R) | TRANSISTOR | | |
| Q3 ,4 | | | 2SC4081(R,S) | TRANSISTOR | M | |
| Q3 ,4 | | | 2SD1819A(Q,R) | TRANSISTOR | M | |
| Q6 ,7 | | | 2SC4081(R,S) | TRANSISTOR | E1E2E3 | |
| Q6 ,7 | | | 2SD1819A(Q,R) | TRANSISTOR | E1E2E3 | |
| Q10 ,11 | | | 2SD1757K | TRANSISTOR | | |
| Q12 | | | 2SA1576A(R,S) | TRANSISTOR | | |
| Q12 | | | 2SB1218A(Q,R) | TRANSISTOR | | |
| Q14 | | | 2SA1576A(R,S) | TRANSISTOR | | |
| Q14 | | | 2SB1218A(Q,R) | TRANSISTOR | | |
| A1 | | | W02-2584-05 | FM FRONT-END ASSY | E1E2E3 | |
| A1 | | | W02-2622-05 | FM FRONT-END ASSY | KPM | |
| A1 | | | W02-2622-05 | FM FRONT-END ASSY | X | |
| AUDIO UNIT (X09-641X-XX) | | | | | | |
| D527 | | | B30-2513-05 | LED(RED) | | |
| C1 ,2 | | | CC45FSL1H390J | CERAMIC 39PF J | E1E2E3 | |
| C3 ,4 | | | CE04LW1C100M | ELECTRO 10UF 16WV | | |
| C5 ,6 | | | CC45FSL1H470J | CERAMIC 47PF J | | |
| C7 ,8 | | | CE04LW1C470M | ELECTRO 47UF 16WV | | |
| C9 ,10 | | | CC45FSL1H470J | CERAMIC 47PF J | | |
| C11 ,12 | | | CQ93FMG1H123J | MYLAR 0.012UF J | | |
| C13 -16 | | | CQ93FMG1H332J | MYLAR 3300PF J | | |
| C17 -26 | | | CC45FSL1H221J | CERAMIC 220PF J | E1E2E3 | |
| C27 ,28 | | | CE04KW1H2R2M | ELECTRO 2.2UF 50WV | KPM | |
| C27 ,28 | | | CE04KW1H2R2M | ELECTRO 2.2UF 50WV | X | |
| C27 ,28 | | | CE04KW1V4R7M | ELECTRO 4.7UF 35WV | E1E2E3 | |
| C29 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |
| C30 | | | CC45FSL1H101J | CERAMIC 100PF J | KPM | |
| C30 | | | CC45FSL1H101J | CERAMIC 100PF J | X | |
| C30 | | | CQ93FMG1H103J | MYLAR 0.010UF J | E1E2E3 | |
| C31 ,32 | | | CC45FSL1H331J | CERAMIC 330PF J | E1E2E3 | |
| C33 -36 | | | CE04LW1H3R3M | ELECTRO 3.3UF 50WV | | |
| C37 ,38 | | | CE04LW1C220M | ELECTRO 22UF 16WV | E1E2E3 | |
| C37 ,38 | | | CE04LW1V4R7M | ELECTRO 4.7UF 35WV | KPM | |
| C37 ,38 | | | CE04LW1V4R7M | ELECTRO 4.7UF 35WV | X | |
| C39 ,40 | | | CC45FSL1H101J | CERAMIC 100PF J | | |
| C41 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |
| C42 | | | CC45FSL1H101J | CERAMIC 100PF J | | |
| C43 ,44 | | | CE04KW1H2R2M | ELECTRO 2.2UF 50WV | | |
| C45 ,46 | | | CK45FB1H681K | CERAMIC 680PF K | | |
| C47 ,48 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |

L : Scandinavia K : USA P : Canada R : Mexico C : China I : Malaysia
Y : PX(Far East,Hawaii) T : England E : Europe G : Germany V : China(Shanghai)
Y : AAFES(Europe) X : Australia Q : Russia H : Korea M : Other Areas △ indicates safety critical components .

PARTS LIST

AR-404/KRF-A4030/A4030E/A4030-S

* New Parts

Parts without **Parts No.** are not supplied.Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.Teile ohne **Parts No.** werden nicht geliefert.

⑦

| Ref. No | Add-ress | New Parts | Parts No. | Description | Desti-nation | Re-marks |
|--|----------|-----------|--|---|--|--------------|
| C49 ,50 C51 ,52 C53 ,54 C55 -58 C59 ,60 | | | CC45FSL1H101J CE04KW1A101M CC45FSL1H020C CC45FSL1H101J CC45FSL2H470J | CERAMIC 100PF ELECTRO 100UF CERAMIC 2.0PF CERAMIC 100PF CERAMIC 47PF | J 10WV C J J | |
| C61 ,62 C63 ,64 C65 ,66 C67 ,68 C67 ,68 | | | CC45FSL1H101J CE04LW1H010M CQ93FMG1H104J CQ93FMG1H224J CQ93FMG1H224J | CERAMIC 100PF ELECTRO 1.0UF MYLAR 0.10UF MYLAR 0.22UF MYLAR 0.22UF | J 50WV J J J | E2E3 MXE1 |
| C69 ,70 C71 -74 C75 C76 ,77 C78 | | | CK45FF1H103Z CK45FF1H472Z CK45FB1H102K CC45FSL1H221J CE04LW1C101M | CERAMIC 0.010UF CERAMIC 4700PF CERAMIC 1000PF CERAMIC 220PF ELECTRO 100UF | Z Z K J 16WV | E1E2E3 |
| C79 C80 C81 C82 C83 ,84 | | | CK45FB1H102K CE04LW1V100M CE04LW1V331M CE04LW1V4R7M CC45FSL1H101J | CERAMIC 1000PF ELECTRO 10UF ELECTRO 330UF ELECTRO 4.7UF CERAMIC 100PF | K 35WV 35WV 35WV J | |
| C85 ,86 C87 C88 C89 ,90 C91 | | | CE04LW1V100M CE04LW2A100M CE04LW2A470M CE04LW1E101M CE04LW1C101M | ELECTRO 10UF ELECTRO 10UF ELECTRO 47UF ELECTRO 100UF ELECTRO 100UF | 35WV 100WV 100WV 25WV 16WV | |
| C92 C93 C94 C95 C96 ,97 | | | CE04LW1V470M CE04LW1V102M CE04LW1V470M CE04LW1V471M C90-3832-05 | ELECTRO 47UF ELECTRO 1000UF ELECTRO 47UF ELECTRO 470UF ELECTRO 4700UF | 35WV 35WV 35WV 35WV 75WV | KPM |
| C96 ,97 C96 ,97 C98 ,99 C100 C101 | | | C90-3832-05 C90-3833-05 CK45FF1H103Z CE04LW1V4R7M CE04LW1A221M | ELECTRO 4700UF ELECTRO 4700UF CERAMIC 0.010UF ELECTRO 4.7UF ELECTRO 220UF | 75WV 63WV Z 35WV 10WV | X E1E2E3 |
| C102 C103 C104 C105,106 C107,108 | | | CE04LW1C101M CE04LW1H010M CE04HW1E220M CC45FSL1H101J CE04LW1V100M | ELECTRO 100UF ELECTRO 1.0UF NP-ELEC 22UF CERAMIC 100PF ELECTRO 10UF | 16WV 50WV 25WV J 35WV | |
| C109 C110 C111 C112,113 C114 | | | CK45FB1H102K CE04LW1V100M C91-1480-05 CK45FF1H103Z CE04LW1A470M | CERAMIC 1000PF ELECTRO 10UF MP 0.22UF CERAMIC 0.010UF ELECTRO 47UF | K 35WV 250WV Z 10WV | |
| C115,116 C117 C118 C119 C120 | | | CE04LW1V4R7M CK45FB1H102K CE04LW1C220M CK45FB1H102K CE04LW1V100M | ELECTRO 4.7UF CERAMIC 1000PF ELECTRO 22UF CERAMIC 1000PF ELECTRO 10UF | 35WV K 16WV K 35WV | |
| C121,122 C123,124 C125,126 C125,126 C127,128 | | | CK45FF1H103Z CE04LW1V4R7M CC45FSL2H101J CC45FSL2H101J CQ93FMG1H562J | CERAMIC 0.010UF ELECTRO 4.7UF CERAMIC 100PF CERAMIC 100PF MYLAR 5600PF | Z 35WV J J J | KPM X |

L : Scandinavia

K : USA

P : Canada

R : Mexico

C : China

I : Malaysia

Y : PX(Far East,Hawaii)

T : England

E : Europe

G : Germany

V : China(Shanghai)

Y : AAFES(Europe)

X : Australia

Q : Russia

H : Korea

M : Other Areas

⚠ indicates safety critical components .

* New Parts

Parts without **Parts No.** are not supplied.Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.Teile ohne **Parts No.** werden nicht geliefert.

⑧

| Ref. No | Add-ress | New Parts | Parts No. | Description | Desti-nation | Re-marks |
|--|----------|-----------|---|--|---------------------------------|--|
| C129,130 C131,132 C133 C134 C135,136 | | * | C91-1584-05 CQ93FMG1H472J CE04HW1HR47M CK45FB1H102K CC45FSL1H221J | MF-C 0.82UF MYLAR 4700PF NP-ELEC 0.47UF CERAMIC 1000PF CERAMIC 220PF | J J 50WV K J | E1E2E3 |
| C137 C502 C503 C504,505 C506 | | | CE04LW1V100M CK45FF1H103Z CK45FB1H102K CK45FF1H103Z CK45FB1H102K | ELECTRO 10UF CERAMIC 0.010UF CERAMIC 1000PF CERAMIC 0.010UF CERAMIC 1000PF | 35WV Z K Z K | E1E2E3 E1E2E3 |
| C507 C508 C508 C509 C510 | | * | CK45FF1H103Z CC45FSL1H101J CC45FSL1H101J CE04RW0J101M CC45FSL1H331J | CERAMIC 0.010UF CERAMIC 100PF CERAMIC 100PF ELECTRO 100UF CERAMIC 330PF | Z J J 6.3WV J | E3 XE1E2 E1E2E3 |
| C511-514 C515 C516 C517 C518-520 | | | CK45FF1H103Z CK45FB1H561K CE04LW1H2R2M CE04LW1H010M CK45FF1H103Z | CERAMIC 0.010UF CERAMIC 560PF ELECTRO 2.2UF ELECTRO 1.0UF CERAMIC 0.010UF | Z K 50WV 50WV Z | E1E2E3 E1E2E3 |
| C521 C521 C522 C523 C524 | | | CC45FSL1H101J CC45FSL1H221J CK45FF1H103Z CE04LW1A101M CK45FF1H103Z | CERAMIC 100PF CERAMIC 220PF CERAMIC 0.010UF ELECTRO 100UF CERAMIC 0.010UF | J J Z 10WV Z | KPMX E1E2E3 E1E2E3 E1E2E3 E1E2E3 |
| C525 C526 C527 C528 C529 | | | CE04LW1H010M CE04LW1A101M CC45FCH1H470J CC45FCH1H180J CC45FSL1H101J | ELECTRO 1.0UF ELECTRO 100UF CERAMIC 47PF CERAMIC 18PF CERAMIC 100PF | 50WV 10WV J J J | E1E2E3 E1E2E3 M |
| C529 C529 C529 C531 C534 | | | CC45FSL1H151J CC45FSL1H470J CC45FSL1H470J CK45FF1H103Z C90-1827-05 | CERAMIC 150PF CERAMIC 47PF CERAMIC 47PF CERAMIC 0.010UF ELECTRO 0.047F | J J J Z 5.5WV | KP E3 XE1E2 E2E3 |
| C534 C538,539 C540 C541 C542 | | | C90-1827-05 CC45FSL1H101J CE04RW1C100M CE04LW1A471M CC45FSL1H331J | ELECTRO 0.047F CERAMIC 100PF ELECTRO 10UF ELECTRO 470UF CERAMIC 330PF | 5.5WV J 16WV 10WV J | MXE1 J KP E3 |
| C542 C545 C549 | | | CC45FSL1H331J CC45FSL1H101J CC45FSL1H271J | CERAMIC 330PF CERAMIC 100PF CERAMIC 270PF | J J J | ME1E2 E1E2E3 |
| CN1 CN2 CN2 CN6 CN7 | | | E40-4245-05 E40-4245-05 E40-4245-05 E40-4281-05 E40-9848-05 | PIN ASSY PIN ASSY PIN ASSY PIN ASSY PIN ASSY | | E2E3 MXE1 M |
| CN8 ,9 CN10 CN11,12 CN21 J1 | | | E40-8319-05 E40-3247-05 E40-4871-05 E40-3261-05 E63-0068-15 | FLAT CABLE CONNECTOR PIN ASSY PIN ASSY PIN ASSY PIN JACK | | |
| J2 ,3 | | | E63-0047-15 | PIN JACK | | |

L : Scandinavia

K : USA

P : Canada

R : Mexico

C : China

I : Malaysia

Y : PX(Far East,Hawaii)

T : England

E : Europe

G : Germany

V : China(Shanghai)

Y : AAFES(Europe)

X : Australia

Q : Russia

H : Korea

M : Other Areas

⚠ indicates safety critical components .

* New Parts

Parts without **Parts No.** are not supplied.

Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.

Teile ohne **Parts No.** werden nicht geliefert.

9

| Ref. No | Add-ress | New Parts | Parts No. | Description | Desti-nation | Re-marks |
|------------|----------|-----------|--------------|------------------------------|--------------|----------|
| J4 | | | E63-0116-05 | PIN JACK | | |
| J4 | | | E63-0164-05 | PIN JACK | | |
| J5 | | | E70-0047-05 | LOCK TERMINAL BOARD | | |
| J6 | | | E11-0293-05 | MINIATURE PHONE JACK(2P V) | | |
| J7 | | | E11-0127-05 | PHONE JACK (3P) | | |
| △ J8 | | | E03-0148-05 | AC OUTLET | KP | |
| △ J8 | | | E03-0149-05 | AC OUTLET | E3 | |
| △ J8 | | | E03-0149-05 | AC OUTLET | ME1E2 | |
| △ J8 | | | E03-0325-05 | AC OUTLET | X | |
| △ F1 | | | F05-2525-05 | FUSE (SEMKO) (250V T2.5AL) | E3M | |
| △ F1 | | | F05-2525-05 | FUSE (SEMKO) (250V T2.5AL) | XE1E2 | |
| △ F1 | | | F50-0076-05 | FUSE(5X20) | KP | |
| △ F2 | | | F05-2525-05 | FUSE (SEMKO) (250V T2.5AL) | M | |
| △ F3 | | | F05-2525-05 | FUSE (SEMKO) (250V T2.5AL) | E1E2E3 | |
| △ F4 ,5 | | | F05-6313-05 | FUSE (SEMKO) (250V T630MAL) | E2E3 | |
| △ F4 ,5 | | | F05-6313-05 | FUSE (SEMKO) (250V T630MAL) | MXE1 | |
| △ F4 ,5 | | | F50-0066-05 | FUSE(5X20) | KP | |
| - | | | J19-5928-13 | HOLDER | | |
| CN4 ,5 | | | J13-0075-05 | FUSE CLIP | | |
| CN13-14 | | | J13-0075-05 | FUSE CLIP | M | |
| CN15,16 | | | J13-0075-05 | FUSE CLIP | | |
| CN17,18 | | | J13-0075-05 | FUSE CLIP | E1E2E3 | |
| CN19,20 | | | J13-0075-05 | FUSE CLIP | | |
| E1 | | | J11-0808-05 | WIRE CLAMPER | | |
| L1 ,2 | | | L39-0085-05 | PHASE COMPENSATION COIL | E1E2E3 | |
| L501 | | | L40-1091-17 | SMALL FIXED INDUCTOR(1UH) | E1E2E3 | |
| L502 | | | L40-1001-17 | SMALL FIXED INDUCTOR(10UH,K) | E1E2E3 | |
| △ T1 | | | L07-2575-05 | POWER TRANSFORMER | E3 | |
| △ T1 | | | L07-2874-05 | POWER TRANSFORMER | KP | |
| △ T1 | | | L07-2875-05 | POWER TRANSFORMER | XE1E2 | |
| △ T1 | | | L07-2876-05 | POWER TRANSFORMER | M | |
| X501 | | | L78-0290-05 | RESONATOR (8MHZ) | | |
| X502 | | | L77-2002-05 | CRYSTAL RESONATOR(4.332MHZ) | E1E2E3 | |
| R63 ,64 | | | RD14NB2E221J | RD 220 J 1/4W | | |
| R67 ,68 | | | RD14NB2E221J | RD 220 J 1/4W | | |
| R69 ,70 | | | RD14NB2E121J | RD 120 J 1/4W | | |
| R75 ,76 | | | RD14NB2E470J | RD 47 J 1/4W | | |
| R81 ,82 | | | RD14NB2E470J | RD 47 J 1/4W | | |
| R89 ,90 | | | RD14NB2E392J | RD 3.9K J 1/4W | | |
| R93 ,94 | | | RD14NB2E392J | RD 3.9K J 1/4W | | |
| R99 ,100 | | | RD14NB2E100J | RD 10 J 1/4W | E1E2E3 | |
| R107,108 | | | RS14KB3D391J | FL-PROOF RS 390 J 2W | | |
| R111 | | | RD14NB2E222J | RD 2.2K J 1/4W | | |
| △ R114 | | | R92-1844-05 | CARBON 3.3M J 1/2W | KP | |
| △ R117 | | | RD14NB2E4R7J | RD 4.7 J 1/4W | | |
| △ R118,119 | | | RD14NB2E101J | RD 100 J 1/4W | | |
| △ R120 | | | RS14KB3D221J | FL-PROOF RS 220 J 2W | | |
| △ R141,142 | | | RD14NB2E4R7J | RD 4.7 J 1/4W | | |
| △ R156 | | | RD14NB2E122J | RD 1.2K J 1/4W | | |
| R168 | | | RD14NB2E1R0J | RD 1 J 1/4W | | |
| R182 | | | RD14NB2E122J | RD 1.2K J 1/4W | | |
| R207,208 | | | RS14KB3D100J | FL-PROOF RS 10 J 2W | | |
| R209 | | | RD14NB2E561J | RD 560 J 1/4W | E1E2E3 | |

L : Scandinavia

K : USA

P : Canada

R : Mexico

C : China

I : Malaysia

Y : PX(Far East,Hawaii)

T : England

E : Europe

G : Germany

V : China(Shanghai)

Y : AAFES(Europe)

X : Australia

Q : Russia

H : Korea

M : Other Areas

△ indicates safety critical components.

* New Parts

Parts without **Parts No.** are not supplied.

Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.

Teile ohne **Parts No.** werden nicht geliefert.

10

| Ref. No | Add-ress | New Parts | Parts No. | Description | Desti-nation | Re-marks |
|-----------|----------|-----------|--------------|------------------------------|--------------|----------|
| R209 | | | RD14NB2E561J | RD 560 J 1/4W | KPX | |
| R575,576 | | | RD14NB2E221J | RD 220 J 1/4W | | |
| R579 | | | RD14NB2E101J | RD 100 J 1/4W | | |
| VR1 ,2 | | | R32-0030-05 | SEMI FIXED VARIABLE RESISTOR | | |
| △ K1 | | | S76-0089-05 | MAGNETIC RELAY | | |
| K2 ,3 | | | S76-0045-15 | MAGNETIC RELAY | | |
| △ S1 | | | S68-0107-05 | PUSH SWITCH | E2E3 | |
| △ S1 | | | S68-0107-05 | PUSH SWITCH | MXE1 | |
| △ S2 ,3 | | | S62-0001-05 | SLIDE SWITCH | M | |
| S501-506 | | | S70-0031-05 | TACT SWITCH | | |
| S508 | | | S70-0031-05 | TACT SWITCH | | |
| S510-515 | | | S70-0031-05 | TACT SWITCH | | |
| S516 | | | T99-0602-05 | ROTARY ENCODER | | |
| S517,518 | | * | T99-0630-05 | ROTARY ENCODER | | |
| D1 | | | HZS5.1N(B2) | ZENER DIODE | | |
| D1 | | | MTZJ5.1(B) | ZENER DIODE | | |
| D2 | | | HZS4.7N(B2) | ZENER DIODE | | |
| D2 | | | MTZJ4.7(B) | ZENER DIODE | | |
| D3 | | | HSS104A | DIODE | | |
| D3 | | | 1SS133 | DIODE | | |
| D4 | | | HZS8.2N(B2) | ZENER DIODE | | |
| D4 | | | MTZJ8.2(B) | ZENER DIODE | | |
| D5 ,6 | | | HSS104A | DIODE | | |
| D5 ,6 | | | 1SS133 | DIODE | | |
| D7 ,8 | | | 1SS244 | DIODE | | |
| D9 -12 | | | HSS104A | DIODE | | |
| D9 -12 | | | 1SS133 | DIODE | | |
| D13 | | | HZS6.2N(B2) | ZENER DIODE | | |
| D13 | | | MTZJ6.2(B) | ZENER DIODE | | |
| △ D14 | | | HZS2.7N(B2) | ZENER DIODE | | |
| △ D14 | | | MTZJ2.7(B) | ZENER DIODE | | |
| △ D15 -17 | | | HSS104A | DIODE | | |
| △ D15 -17 | | | 1SS133 | DIODE | | |
| D18 | | | HZS5.6N(B2) | ZENER DIODE | | |
| △ D18 | | | MTZJ5.6(B) | ZENER DIODE | | |
| D19 | | | S1ZB20(4101) | DIODE | | |
| D20 ,21 | | | HZS16N(B2) | ZENER DIODE | | |
| D20 ,21 | | | MTZJ16(B) | ZENER DIODE | | |
| △ D22 | | | D4SBL20UF03 | DIODE | | |
| D23 | | | HZS5.6N(B2) | ZENER DIODE | | |
| D23 | | | MTZJ5.6(B) | ZENER DIODE | | |
| △ D24 -27 | | | S5688B | DIODE | | |
| △ D24 -27 | | | 1SR139-400 | DIODE | | |
| D28 | | | HZS8.2N(B2) | ZENER DIODE | | |
| D28 | | | MTZJ8.2(B) | ZENER DIODE | | |
| D31 ,32 | | | HSS104A | DIODE | | |
| D31 ,32 | | | 1SS133 | DIODE | | |
| D33 ,34 | | | HZS13N(B2) | ZENER DIODE | KPMX | |
| D33 ,34 | | | HZS15N(B2) | ZENER DIODE | E1E2E3 | |
| D33 ,34 | | | MTZJ13(B) | ZENER DIODE | | |
| D33 ,34 | | | MTZJ15(B) | ZENER DIODE | | |
| D35 ,36 | | | HZS18N(B2) | ZENER DIODE | KPMX | |
| D35 ,36 | | | HZS20N(B2) | ZENER DIODE | E1E2E3 | |
| D35 ,36 | | | MTZJ18(B) | ZENER DIODE | KPMX | |

L : Scandinavia

K : USA

P : Canada

R : Mexico

C : China

I : Malaysia

Y : PX(Far East,Hawaii)

T : England

E : Europe

G : Germany

V : China(Shanghai)

Y : AAFES(Europe)

X : Australia

Q : Russia

H : Korea

M : Other Areas

△ indicates safety critical components.

PARTS LIST

AR-404/KRF-A4030/A4030E/A4030-S

* New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

11

| Ref. No | Add-ress | New Parts | Parts No. | Description | Desti-nation | Re-marks |
|---|----------|-----------|--|--|--|----------|
| D35 ,36 D37 ,38 D37 ,38 D39 ,40 D39 ,40 | | | MTZJ20(B) HSS104A 1SS133 HZS15N(B2) MTZJ15(B) | ZENER DIODE DIODE DIODE ZENER DIODE ZENER DIODE | E1E2E3 KPMX KPMX | |
| D41 ,42 D41 ,42 D503 D503 D504 | | | HSS104A 1SS133 HSS104A 1SS133 HSS104A | DIODE DIODE DIODE DIODE DIODE | M M X | |
| D504 D505 D505 D508,509 D508,509 | | | 1SS133 HSS104A 1SS133 HSS104A 1SS133 | DIODE DIODE DIODE DIODE DIODE | X E1E2E3 E1E2E3 | |
| D510 D510 D510 D510 D511-524 | | | HSS104A HSS104A 1SS133 1SS133 HSS104A | DIODE DIODE DIODE DIODE DIODE | E1E2E3 MX E1E2E3 MX KP | |
| D511-524 D525 D525 D526 D526 | | | 1SS133 HSS104A 1SS133 HZS5.1N(B2) MTZJ5.1(B) | DIODE DIODE DIODE ZENER DIODE ZENER DIODE | KP E1E2E3 E1E2E3 | |
| D528-530 D528-530 ED51 IC1 IC2 | | | HSS104A 1SS133 10-BT-216GK NJM4580L-D M62492FP | DIODE DIODE FLUORESCENT INDICATOR TUBE ANALOGUE IC MOS-IC | | |
| IC3 IC4 IC51 IC51 IC51 | | | TC9164AN NJM4565L-D CXP82832-162Q CXP82832-162Q CXP82840-163Q | MOS-IC ANALOGUE IC MI-COM IC MI-COM IC MI-COM IC | KPM X E1E2E3 | |
| IC52 IC53 IC54 Q1 ,2 Q1 ,2 | | | BR24C02 S-806D-Z SAA6579/R DTC124ESA DTC124ESA | IC(E2PROM) ANALOGUE IC ANALOGUE IC DIGITAL TRANSISTOR DIGITAL TRANSISTOR | E1E2E3 KPM X | |
| Q1 ,2 Q1 ,2 Q3 -6 Q3 -6 Q7 -10 | | | UN4212 UN4212 2SC1740S(Q,R) 2SC3311A(Q,R) 2SA992(F,E) | DIGITAL TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR | KPM X | |
| Q11 -14 Q11 -14 Q11 -14 Q15 ,16 Q15 ,16 | | | 2SC1845(F,E) 2SC2631(R,S) 2SC2631(R,S) 2SA1123(R,S) 2SA1123(R,S) | TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR | E1E2E3 KPM X KPM X | |
| Q15 ,16 Q19 ,20 Q21 ,22 Q25 ,26 Q27 ,28 | | * | 2SA992(F,E) TRAIT3N TRAIT3P 2SA992(F,E) 2SC2631(R,S) | TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR | E1E2E3 | |

L : Scandinavia K : USA P : Canada R : Mexico C : China I : Malaysia
Y : PX(Far East,Hawaii) T : England E : Europe G : Germany V : China(Shanghai)
Y : AAFES(Europe) X : Australia Q : Russia H : Korea M : Other Areas Δ indicates safety critical components .

* New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

12

| Ref. No | Add-ress | New Parts | Parts No. | Description | Desti-nation | Re-marks |
|---|----------|-----------|---|--|----------------------|----------|
| Q29 ,30 Q29 ,30 Q31 Q32 ,33 Q34 ,35 | | | 2SC1740S(Q,R) 2SC3311A(Q,R) 2SA992(F,E) 2SC1845(F,E) 2SC1740S(Q,R) | TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR | | |
| Q34 ,35 Q36 Q37 Q37 Q38 | | | 2SC3311A(Q,R) 2SB1640 2SC1740S(Q,R) 2SC3311A(Q,R) 2SC3940A | TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR | | |
| Q39 Q40 ,41 Q40 ,41 Q42 Q44 | | | 2SD2525 2SC1740S(Q,R) 2SC3311A(Q,R) 2SB1640 2SA1309A(Q,R) | TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR | | |
| Q44 Q45 Q45 Q46 ,47 Q46 ,47 | | | 2SA933AS(Q,R) 2SC1740S(Q,R) 2SC3311A(Q,R) 2SA1309A(Q,R) 2SA933AS(Q,R) | TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR | | |
| Q501 Q501 Q502 Q502 Q503 | | | 2SC1740S(Q,R) 2SC3311A(Q,R) 2SA1309A(Q,R) 2SA933AS(Q,R) 2SC1740S(Q,R) | TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR | | |
| Q503 | | | 2SC3311A(Q,R) | TRANSISTOR | | |
| A501 | | | W02-2625-05 | OPTIC RECEIVING MODULE | | |

L : Scandinavia K : USA P : Canada R : Mexico C : China I : Malaysia
Y : PX(Far East,Hawaii) T : England E : Europe G : Germany V : China(Shanghai)
Y : AAFES(Europe) X : Australia Q : Russia H : Korea M : Other Areas Δ indicates safety critical components .

HOW TO READ THE PARTS LIST
ABBREVIATION OF MODEL AND MASS PRODUCTION'S DESTINATIONS

| MODEL | CNT ABB. | Australia | Canada | China | England | Europe | Germany | Korea | Malaysia |
|-------------|-------------|-----------|----------|--------|-------------|----------|---------|------------|----------|
| AR-404 | - | X | P | C | T | E | G | H | I |
| KRF-A4030 | - | - | - | - | - | E1 | - | - | - |
| KRF-A4030E | - | - | - | - | - | E2 | - | - | - |
| KRF-A4030-S | - | X | - | - | - | E3 | - | - | - |
| MODEL | CNT ABB. | Mexico | PX/AAFES | Russia | Scandinavia | Shanghai | USA | Other area | |
| AR-404 | - | - | Y | Q | L | V | K | M | |
| KRF-A4030 | - | - | - | - | - | - | - | - | - |
| KRF-A4030E | - | - | - | - | - | - | - | - | - |
| KRF-A4030-S | - | - | - | - | - | - | - | M | - |

PARTS LIST

AR-404/KRF-A4030/A4030E/A4030-S

SPECIFICATIONS

For U.S.A. and Canada

[AUDIO section]

Rated power output during STEREO operation

100 watts per channel minimum RMS, both channels driven, at 8 Ω from 40 Hz to 20 kHz with no more than 0.5 % total harmonic distortion. (FTC)

Total harmonic distortion 0.02 % (1 kHz, 50 W, 8 Ω)
Signal to noise ratio (IHF'66)
PHONO (MM) 75 dB
CD 92 dB
Input sensitivity / impedance
PHONO (MM) 2.5 mV / 27 k Ω
CD 200 mV / 47 k Ω
Output level / impedance
TAPE REC 200 mV / 2.2 k Ω
PRE OUT (SUBWOOFER) 2 V / 2.2 k Ω
Tone control
BASS ± 9 dB (at 100 Hz)
TREBLE ± 9 dB (at 10 kHz)

[FM tuner section]

Tuning frequency range 87.5 MHz ~ 108.0 MHz
Usable sensitivity (MONO) 1.6 μ V (75 Ω)/15.2 dBf
(75 kHz DEV., SINAD 30 dB)
50dB quieting sensitivity
STEREO 31.6 μ V (75 Ω)/ 41.2 dBf
Total harmonic distortion (1 kHz)
MONO 0.6 % (65 dBf input)
STEREO 0.7 % (65 dBf input)
Signal to noise ratio (1 kHz, 75 kHz DEV.)
MONO 75 dB (65 dBf input)
STEREO 68 dB (65 dBf input)
Stereo separation (1 kHz) 38 dB
Selectivity (± 400 kHz) 65 dB
Frequency response ... (30 Hz ~ 15kHz), +0.5 dB ~ -3.0 dB

[AM tuner section]

Tuning frequency range 530 kHz ~ 1,700 kHz
Usable sensitivity (30% mod., S/N 20 dB)
..... 16 μ V / (600 μ V/m)
Signal to noise ratio (30% mod. 1 mV input) 50 dB

[GENEAL]

Power consumption 2.8 A
AC outlet
SWITCHED 2 (total 150 W, 1.25 A max.)
Dimensions W:440 mm (17-5/16")
H:144 mm (5-11/16")
D:389 mm (15-5/16")
Weight (Net) 8.0 kg (17.6 lb)

For other countries

[AUDIO section]

Effective power output during STEREO operation

1kHz,10% T.H.D.,at 8 Ω 140 W + 140 W

100 watts per channel minimum RMS, both channels driven, at 8 Ω from 40 Hz to 20 kHz with no more than 0.5 % total harmonic distortion.(FTC)

Total harmonic distortion 0.02 % (1 kHz, 50W, 8 Ω)
Signal to noise ratio (IHF'66)
PHONO (MM) 75 dB
CD 92 dB
Input sensitivity / impedance
PHONO (MM) 2.5 mV / 27 k Ω
CD 200 mV / 47 k Ω
Output level / impedance
TAPE REC 200 mV / 2.2 k Ω
PRE OUT (SUBWOOFER) 2 V / 2.2 k Ω
Tone control
BASS ± 9 dB (at 100 Hz)
TREBLE ± 9 dB (at 10 kHz)

[FM tuner section]

Tuning frequency range 87.5 MHz ~ 108.0 MHz
Usable sensitivity (MONO 1.6 μ V (75 Ω)/ 15.2 dBf
(75 kHz DEV., SINAD 30 dB)
50dB quieting sensitivity
STEREO 31.6 μ V (75 Ω)/ 41.2 dBf
Total harmonic distortion (1 kHz)
MONO 0.6 % (65 dBf input)
STEREO 0.7 % (65 dBf input)
Signal to noise ratio (1 kHz, 75 kHz DEV.)
MONO 75 dB (65 dBf input)
STEREO 68 dB (65 dBf input)
Stereo separation (1 kHz) 38 dB
Selectivity (± 400 kHz) 65 dB
Frequency response (30 Hz~15kHz), +0.5 dB ~ -3.0 dB

[AM tuner section]

Tuning frequency range
9 kHz step 531 kHz ~ 1,602 kHz
10 kHz step (except Australia) ... 530 kHz ~ 1,610 kHz
Usable sensitivity (30% mod., S/N 20 dB)
..... 16 μ V / (600 μ V/m)
Signal to noise ratio (30% mod. 1 mV input) 50 dB

[GENEAL]

Power consumption 280 W
AC outlet
SWITCHED (for Australia) 1 (total 150 W max.)
SWITCHED (except Australia) ... 2 (total 150 W max.)
Dimensions W:440 mm (17-5/16")
H:144 mm (5-11/16")
D:389 mm (15-5/16")
Weight (Net) 8.0 kg (17.6 lb)

Notes:

1. KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.
2. The full performance may not be exhibited in an extremely cold location (under a water-freezing temperature).

AR-404/KRF-A4030/A4030E/A4030-S

Note:

Component and circuit are subject to modification to insure best operation under differing local conditions. This manual is based on Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

KENWOOD CORPORATION

14-6,Dogenzaka 1-chome, Shibuya-ku, Tokyo, 150-8501 Japan

KENWOOD SERVICE CORPORATION

P.O BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745, U.S.A.

KENWOOD ELECTRONICS CANADA INC.

6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8

KENWOOD ELECTRONICS LATIN AMERICA S.A.

P.O BOX 55-2791, Piso 6 plaza Chase, Cl. 47 y Aquilino de la Guardia Panama, Republic de Panama

KENWOOD ELECTRONICS BRASIL LTDA.

Av. Moema, 170-17", Andar-Cobertura "B", Ed. Maximum Service Center, 04077-020 Moema, São Paulo-SP-Brasil

KENWOOD ELECTRONICS U.K. LIMITED

KENWOOD House, Dwight Road, Watford, Herts., WD1 8EB., United Kingdom

KENWOOD ELECTRONICS BELGUM N.V.

Meachelsesteenweg 418, B-1930 Zaventem, Belgium

KENWOOD ELECTRONICS DEUTSCHLAND GMBH

Rembrücker Str. 15, 63150 Heusenstamm, Germany

KENWOOD ELECTRONICS FRANCE S.A.

13 Boulevard Ney, 75018 Paris, France

KENWOOD ELECTRONICS ITALIA S.p.A.

Via G. Sirtori, 7/9 20129, Milano, Italy

KENWOOD IBÉRICA S.A.

Bolivia, 239-08020 Barcelona, Spain

KENWOOD ELECTRONICS AUSTRALIA PTY. LTD.

(A.C.N. 001 499 074)
16 Giffnock Avenue, North Ryde, N.S.W. 2113, Australia

KENWOOD ELECTRONICS (HONG KONG) LTD.

Unit 3712-3724, Level 37, Tower 1, Metroplaza, 223 Hing Fong Road, Kwai Fong N.T., Hong Kong

KENWOOD ELECTRONICS GULF FZE

P.O.Box 61318, Jebel Ali, Dubai, U.A.E.

KENWOOD ELECTRONICS SINGAPORE PTE LTD.

No. 1 Genting Lane #02-02, KENWOOD Building, Singapore, 349544

KENWOOD ELECTRONICS (MALAYSIA) SDN BHD.

#4.01 Level 4, Wisma Academy Lot 4A, Jalan 19/1 46300 Petaling Jaya Selangor Darul Ehsan Malaysia

KENWOOD ELECTRONICS (THAILAND) CO., LTD.

2019 New Pechburi Road, Bangkapi, Huaykwang, Bangkok, 10320 Thailand